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## The liberalisation of planting rights in the EU wine sector

Roberta Sardone, Valentina Cardinale, Crescenzo Dell'aquila, Paola Doria, Roberto Solazzo, Alfredo Manuel Coelho, Etienne Montaigne, Vasco Boatto, Andrea Dal Bianco, Luigi Galletto, et al.

### ► To cite this version:

Roberta Sardone, Valentina Cardinale, Crescenzo Dell'aquila, Paola Doria, Roberto Solazzo, et al.. The liberalisation of planting rights in the EU wine sector. [Technical Report] European Parliament's Committee on Agriculture and Rural Development. 2012, 180 p. hal-01499067

**HAL Id: hal-01499067**

**<https://hal.science/hal-01499067>**

Submitted on 30 Mar 2017

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DIRECTORATE-GENERAL FOR INTERNAL POLICIES

**POLICY DEPARTMENT**  
STRUCTURAL AND COHESION POLICIES **B**

**Agriculture and Rural Development**

Culture and Education

Fisheries

Regional Development

Transport and Tourism



# THE LIBERALISATION OF PLANTING RIGHTS IN THE EU WINE SECTOR

STUDY





**DIRECTORATE-GENERAL FOR INTERNAL POLICIES**  
**POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES**

**AGRICULTURE AND RURAL DEVELOPMENT**

# **THE LIBERALISATION OF PLANTING RIGHTS IN THE EU WINE SECTOR**

**STUDY**

This document was requested by the European Parliament's Committee on Agriculture and Rural Development.

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Original: EN.

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To contact the Policy Department or to subscribe to its monthly newsletter please write to: [poldep-cohesion@europarl.europa.eu](mailto:poldep-cohesion@europarl.europa.eu)

Manuscript completed in April 2012.  
Brussels, © European Union, 2012.

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DIRECTORATE-GENERAL FOR INTERNAL POLICIES  
POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES

AGRICULTURE AND RURAL DEVELOPMENT

# THE LIBERALISATION OF PLANTING RIGHTS IN THE EU WINE SECTOR

STUDY

## Abstract:

The study analyses the theme of production potential regulation and of the planned abolishment of the planting rights regime considering the constraints defined by the CAP evolution, the current situation of the market, the role in the market of different regions and the structural complexity of the European wine industry. The study, starting from the analysis of the implementation of the planting rights regime across the EU and through an investigation of what could be the effects of the abolishment of the planting rights regime, defines which should be the policies to:

- a) counterbalance the effects of the liberalization of plantation;
- b) improve the functioning of the planting rights regime by implementing a new mechanism of functioning.

IP/B/AGRI/IC/2011-006

April 2012

PE 474.535

EN



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## **LIST OF ABBREVIATIONS**

**ARDA** Agricultural and Rural Development Agency

**CAP** Common Agricultural Policy

**CES** Constant Elasticity of Substitution

**CGM** Concentrated Grape Must

**CMO** Common Market Organisation

**COGECA** General Committee for Agricultural Cooperation in the EU

**COPA** Committee of Professional Agricultural Organisations

**DB** Data Base

**EU** European Union

**F&V** Fruit and Vegetables

**FADN** Farm Accountancy Data Network

**GATT** General Agreement on Tariffs and Trade

**GI** Geographical Indication

**IBO** Interbranch Organisation

**INAO** Institut National des Appellations d'Origine

**M&A** Mergers and Acquisitions

**MS** Member State

**NSP** National Support Program

**ODG** Organisme de Gestion

**OIV** Organisation Internationale de la Vigne et du Vin



## FADN GLOSSARY

**Depreciation** - Depreciation of capital assets estimated at replacement value. Entry in the accounts of depreciation of capital assets over the accounting year. It concerns plantations of permanent crops, farm buildings and fixed equipment, land improvements, machinery and equipment and forest plantations. There is no depreciation of land and circulating capital.

**Family Farm Income** - Remuneration to fixed factors of production of the family (work, land and capital) and remuneration to the entrepreneur's risks (loss/profit) in the accounting year.

**Farm Net Value Added** - Remuneration to the fixed factors of production (work, land and capital), whether they be external or family factors. As a result, holdings can be compared irrespective of their family/non-family nature of the factors of production employed. This indicator is sensitive, however, to the production methods employed: the ratio (intermediate consumption plus depreciation)/fixed factors may vary and therefore influence the FNVA level. For example, in the livestock sector, if production is mostly without the use of land (purchased feed) or extensive (purchase and renting of forage land).

**Gross Farm Income** - Is given by output minus intermediate consumption plus balance current subsidies and taxes.

**Total Assets** - Only fixed and current assets in ownership are taken into account. Capital indicators are based on the value of the various assets at closing valuation.

**Total Intermediate Consumption** - Total specific costs (including inputs produced on the holding) and overheads arising from production in the accounting year.

**Total Labour Input** - Total labour input of holding expressed in annual work units (full-time person equivalents).

**Total Output** - Total of output of crops and crop products, livestock and livestock products and of other output. Sales and use of (crop and livestock) products and livestock plus change in stocks of products (crop and livestock) plus change in valuation of livestock.

**Total External Factors** - Remuneration of inputs (work, land and capital) which are not the property of the holder. It includes wages, rent and interest paid.

**Unpaid Labour Input** - Refers generally to family labour expressed in Family work unit (full-time person equivalents).

**Utilized Agricultural Area** - Total utilized agricultural area of holding. Does not include areas used for mushrooms, land rented for less than one year on an occasional basis, woodland and other farm areas (roads, ponds, non-farmed areas, etc.). It consists of land in owner occupation, rented land, land in share-cropping (remuneration linked to output from land made available). It includes agricultural land temporarily not under cultivation for agricultural reasons or being withdrawn from production as part of agricultural policy measures. It is expressed in hectares (10 000 m<sup>2</sup>).

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## EXECUTIVE SUMMARY

### General overview of world wine market

Markets are deeply changing in recent years, with wine consumption increasing in non producing countries. This creates both a challenge and an opportunity for EU wines to be competitive in the new world of wine consumption. It is essential to understand that there are different wine segments, characterized by very different ways of appreciating wine and different prices. Accordingly, such segments of wine consumption among new consumers require a segmented supply, which may also imply different regulations.

There are consumers who base their preferences on simple key drivers, there are also more experienced consumers of quality wines and there are also many types of wine consumers in between.

This being a simplified but accurate picture of world wine consumption, the three major questions to be raised are: (1) what is the size of each market segment, (2) how are they evolving and how will they develop in the future, and (3) to what extent can EU wines compete successfully in all of these market segments. These are not easy questions to be answered, although we may anticipate that (1) a great majority of world wine consumption takes place in quite low price segments, (2) "easy wines" directed to non-expert drinkers are growing in world wine consumption at the same time that wine remains an "aspirational" drink, and (3) EU wine can compete in all wine segments, provided that wine supply is also segmented, with different characteristics in production which may also imply different rules for different types of wines, directed to different types of consumers.

From the market point of view it can be affirmed that there are different types of wine which may be directed to different market segments, which are evolving differently. Indeed, a successful commercial policy as well as an efficient public regulation would need to assess which type of wine, produced under which circumstances, with what type of image, in which kind of container or bottle, should be directed where and to what type of consumer, at which price segment and through what kind of distribution channel. Putting together all these elements – and more – in a competitive way would be the key to success. But accepting these differences is essential to maintain the wine sector, particularly in Europe, where social, cultural and environmental factors complement its economic importance. Different wine segments, requiring different types of producers, companies, strategies and probably, regulation frameworks, to finally be efficient and competitive at each market and price point.

The change in flows described above has been the result of a complex evolution in the nature and structure of the world wine market. Four main drivers have determined the transformation in the geographic division of production and consumption and in the competitive position of each country: evolution of the demand, growth of the power of distribution, emergence of brand importance and growth of competition. The change in demand has determined increasing requirements in terms of value (or rather quality/cost relationship), diversification of the sensory experience and, a very important element, individualization and recognition of the products. The increased number of participating countries in the international wine trade has determined a huge growth of competition. Such evolution interacting with the increased role of the large retailers and the evolution of demand have determined the condition for the appearance of the brand as an important

element in the marketing strategy of a company, redefining the opportunity concerning economies of scale in the wine industry.

In the last thirty years the combined action of demand, distribution and new players on the market has induced a change in the wine market which has been transformed from business of a strongly agricultural nature guided by the supply, to a sector of the foodstuff industry characterized by high levels of competition and professionalism, where the supply chain is largely controlled by large retailers and agents of the intermediate distribution. Wine producers have therefore to negotiate from an uncomfortable position access to the market and the capacity to do this is a crucial element in the competition.

Inside this arena, the EU wine supply is represented by an extremely wide range of companies – private or cooperatives - which in structural and strategic terms do not appear very different from those of the new world. Among the 40 largest wine companies in the world, 23 belong to EU and of these 5 are cooperatives. In addition, the EU, as the competing countries, is present in the wine market with a very important number of small quality-oriented wineries. Finally, the EU competes with many medium wineries, mainly under family control or cooperatives.

Probably the current structure of the European wine industry will be exposed to changes driven by the opportunities linked to economies of scale and organizational economies, whether in the production or in the distribution of wine. Such opportunities will probably determine an increased competitive advantage for the big companies in comparison to the small and medium ones, which is stressed in the most basic segments of the market, where the low margins make cost differentials a real discriminating element. Reasonable expectations suggest the EU wine sector will see a sensitive process of concentration between the companies oriented towards the lower segments of the market, mainly involving the cooperatives. Such consolidation could also take place with the setting up of a network of firms and not only via merging and acquisition.

The competitive pressure in the wine market has determined not only a differentiation of the companies operating in the wine business in terms of turnover and supply strategy, but also in terms of variety of forms of organization of production chains.

## **The mechanisms of planting rights in European countries**

Following the introduction of Regulation (EC) n. 1493/1999, Article 5(1), Member States (MS) should establish national and/or regional reserves for the management of planting rights. However, MS have the possibility to choose an *effective system* for managing planting rights as an alternative to the reserve system. The new CMO for wine (2008) kept the national and regional reserves systems “in order to improve the management of wine-growing potential and to promote the efficient use of planting rights and thus to further mitigate the effect of transitional restriction on plantings”.

According to data published by the Commission (2005/2006) the amount of planting rights held by producers in the EU(15) was approximately 231,809 ha. In particular, Spain (88,412 ha), Italy (52,465 ha) and France (43,702 ha) accounted for the majority of the replanting rights available in that year.

In some countries, the transfer of planting rights requires a previous authorization from regional or national authorities (e.g. Spain, Italy). In other countries, such authorization is not required (e.g. Portugal). In addition, the volume (ha) of replanting rights allowed for transfers every year is restricted in some countries, regions, and PDO/PGI.

The new planting rights recognized by the EU may have two different origins: a) new planting rights of administrative nature; b) and new planting granted to meet the demand for quality wines produced in specified regions (quality wines) and table wines with geographical indications. The last CMO for wine (2008) forbids all new plantings until 31 December 2015. If necessary, Member States may extend this prohibition until 31 December 2018. The Regulation justifies this prohibition based on the need to achieve a balance in the European wine market.

According to the Act of Accession to the European Union, newly created planting rights were allocated to New MS.

The Common Market Organization (CMO) for wine specifies the mechanisms associated with vine planting rights in the EU-27. However, while sharing the same common framework, there are significant differences in the way Member States or Regions adopted the framework.

In **Spain**, the first attempt to regulate vineyard (restrict) plantings was held on 1932, through the publication of a global framework for the wine sector (*Estatuto del Vino*). By 1954, a new decree restricted vine plantings in order to prevent imbalances between supply and demand (Elgue, s.d.). Therefore, new vines and vine (re)plantings were forbidden for the 1954/1955 campaign. Later, in 1970, a new vine and wine general framework was adopted and after the accession to the EEC in 1986, Spain progressively adopted the European legislation on this matter. In Spain most of the transfers of replanting rights are located inside the same region (intra-regions). The number of transfers between regions is quite limited. The transfer of planting rights inside the same region (*Comunidade Autonoma*) must be previously authorized by the regional government. The authorization for transferring planting rights located in different regions must be authorized by the national Ministry of Agriculture. New plantings rights require a previous authorization from the regional governments of the territories concerned by the new plantings. Whenever the Ministry of Agriculture is concerned by the transfer of the planting rights, an authorization is required. Regional governments may set up a minimal surface to plant with the replanting rights and they may limit the replanting to some varieties. Spain created one national reserve and several regional reserves of planting rights. Some of the regions (*Comunidades Autonomas*) decided not to create their own reserves. The main goal of these reserves consists on the attribution of vine planting rights to the national reserve on the basis of the demand on planting rights.

**France** established a planting rights system in 1931. More recently, with the 1999 and 2008 CMO reforms, the system of planting rights was consolidated. Grape growers have several options if they intend to plant a vine (grubbing up of a surface of vines and later to replant an equivalent area; purchasing of a parcel of vines in the market; purchasing a (re)planting right in the market or from a reserve to plant an available parcel). After the introduction of the French national reserve, prices in the free market are slightly below the price for planting rights in the reserve. Therefore, to some extent, the national reserve provides a sign for setting up the prices for the transactions in the market. In France, with the exception of wines without geographic indication, all the other categories of wines (PDO, PGI) require permission to plant. Therefore, the production potential is controlled for PDO and PGI wines. According to the perspectives for the wine market, every PDO and PGI wines board manages the production potential through the approval of annual quotas to replant. A balance is negotiated at the national level aiming to the decree of the Ministry of Agriculture, published and becoming the reference. The annual quota is shared among all the demands for additional plantings, according to three types of criteria: eligibility, priority, maximum surface. France established a national reserve following the 1999 reform on the CMO for wine. The planting rights in the reserve have two main origins: planting

rights proceeding directly from owners and in cases where members did not made use of it in the legal time frame (expired). Following the creation of the national reserve, prices for planting rights were established at 1,750 €/ha (campaigns 2002/2006), based on the free market reference. The prices diminished progressively and in 2011/2012 the sale of planting rights from the reserve reached the unique price of 1,000 €/ha. According to interviewees, market prices in the free market are set up according to the price of planting rights in the reserve. Planting rights may also be granted for free to young farmers. The functioning of the reserve is adapted every campaign depending of the status of the wine market in the previous campaign and the quotas authorizing new plantings.

In **Italy**, before the setting up of the European planting rights system, the sector was been characterised by a substantial liberalisation. In Italy, the transfer of replanting rights may be partially or fully transferred to other individuals or farms for the production of PDO or PGI wines. The transfer of replanting rights requires a previous authorization from the regional or State authorities. Generally speaking, the general principles of the CMO for wine were applied to the transfers of planting rights inside the regions. However, some Italian regions set up some constraints concerning the transfer of replanting rights between regions. In Italy some of the planting rights were distributed both for free and after payment. Compensation for the planting rights provided from the regional reserve depends on every region, accounting for approximately 4,000 €/ha. This amount is reduced to one-third in the case of viticulture in the mountains and terraces. Planting rights free of charge were mainly distributed to young farmers establishing their first vineyard. As a general rule, planting rights granted from the regional reserves are distributed according to priority criteria: category of wines (PDO, PGI), minimum and maximum surfaces, priority territories (mountains or terraces).

In **Hungary**, planting rights were introduced for the first time in 14 May 2004, following the implementation of the CMO for wine in this country. Therefore, in accordance with Regulation (EC) 1493/1999, Hungary implemented a new system to manage planting rights. The management of the production potential moved from a quasi-liberal planting system to a highly regulated scheme, where during a relatively short period (during the last 7 years) some significant changes have occurred with the implementation of the national reserve of planting rights. In Hungary, there are three types of plantation rights considering their origins and the period of use. Planting rights can be used only for plantations of vines for PDO or PGI wines. The principles of free transfer of planting rights between Hungarian regions apply. After expiration, plantation rights are transferred directly to the national reserve. After the accession to the European Union, Hungary implemented the "effective system". Therefore, up until 2010, the Hungarian system did not have a national reserve of planting rights. Following the introduction of the 2008 reform of the CMO for wine, the payment agency (ARDA) established in 01/08/2010 a national reserve from planting rights formed at the moment of the EU accession and not used by producers until 31/7/2010. Twice a year, the payment agency publishes information about planting rights sales from the national reserve for an indicative announced price. Planting rights from the reserve can be distributed both for consideration and for free. Basically, young farmers are concerned by the distribution of planting rights for free.

In **Germany**, the flow of replanting rights between regions is quite limited. The transfer of planting rights from steep slopes (> 30%) to plains is forbidden, as it is the case of transferring planting rights from PDO to non-PDO areas. In Germany, only Franconia and Hessen apply a regional reserve of planting rights, in the other regions the open market of planting rights functions. In Germany, prices for planting rights from the regional reserves depend on each region. Currently, **Portugal** allows free transfers of replanting rights between regions. In general, the prices paid for replanting rights having the right to produce PDO Port Wines are around 10 times higher than the price of replanting rights for



the production of other category of wines (the price of rights to produce Port PDO wines can reach an average value of 10,000 to 15,000 €/ha). In Germany and Portugal, planting rights from the reserves may be granted for free or may be subject to consideration. In Germany there are no brokers who deal with planting rights. It is an open market where transactions on planting rights happen among private owners. Conversely, in Portugal wine brokers play a role in the transfer of planting rights.

According to the 2008 legislation, a given amount of unlawful plantings exists in the EU as a result of the violation of the transitional prohibition of new plantings. This phenomenon determines an unfair competition and exacerbates the wine crisis. Unlawful plantings before 31 August 1998 were not subject to any grubbing-up obligation and producers were allowed to regularize these plantings before 31 December 2009 with the payment of a fee (after this period, grubbing-up of unlawful plantings became mandatory). For the unlawful plantings realized after 31 August 1998 the grubbing up became mandatory. Sanctions apply for non-compliance with these obligations.

More than 40 interviews had been conducted with professionals working in the wine sector. The survey, concerning evaluations of planting rights regime, covered the most important regions in the major wine producing countries.

According to most of the interviewees, planting rights had no or a little influence on the development of dynamic farms in Europe; the producers who have needed to expand their activity have succeeded, despite the planting rights scheme. Farms that increased their size either acquired planting rights through the reserves, or they planted new vineyards (acquiring planting rights from the market) or they purchased vineyards already planted. Although the opinions are not always convergent, in many cases the acquisition of planting rights from the reserve was complex and the rights were not enough.

In Europe the planting rights from the reserve, overall, were both obtained for free and for consideration. In most cases young farmers benefited from planting rights for free as a measure in favour of generational change. The main problems encountered for acquisition of planting rights from the reserves were: the convergence of interests between buyers and sellers, the scarcity of information and the administrative procedures that have made long and complicate the acquisition.

Regarding to the planting rights from the market, there are significant differences between the evolution of prices between regions. In some areas the prices were considerably different from average. The main problems are associated with the need to obtain a previous authorization to plant vines; some other difficulties were related to the time span, the administrative documents to provide, other than the phenomena of fraud (invalid rights, especially inside transition from one region to another).

Overall, the farms who have expanded their area under vines have allocated most of the additional surface areas to produce grapes for wine PDO; in some cases (as with Germany and Portugal) the new areas were allocated only to this typology. The other mechanisms for regulation of supply that interact with planting rights regime regard mainly limitations related to yields. Most of the interviewees stated that total abolishment of planting rights could be a danger for small growers and it should have a negative effect on DO. The freedom to have any number of planting rights in the market could have a negative effect on supply control. Small growers find difficulties to cope with it and big enterprises have the financial resources to buy them. Some opinions regard the distribution criteria of the planting rights. In Aquitaine some interviewees state that countries should distribute the planting rights according to the needs of the market and therefore for this purpose market studies should be undertaken previously. In Piemonte, the producers in the non-classic area think that a constraint on plantation would be useful, based on an effective qualitative



criterion and not simply on a quantitative basis. Some interviewees in Aquitaine consider that it would be a great idea to increase new planting rights for the farms obtaining good performances. Others in Languedoc stress that it would be a good idea to optimise the access to planting rights by young farmers and by small and medium companies.

According to some interviewees, it would be opportune to consider a regional management and not only a system centered at the national level. Some interviewees recommend to rethink the current system and to develop better governance for the whole wine chain. In Rioja some actors propose that interprofessions should manage the process but others are against the measure because they think that the Regulatory Council is the right representative. According to some interviewees in Languedoc, it is necessary to consolidate the PDO and PGI systems in order to help these collective structures to manage the production potential.

### **Evaluation of the impact of planting rights abolition: relocation of vineyards, over production and protection of areas producing quality wines**

The impact of planting right abolition has been evaluated applying quantitative and qualitative methods. The Nerlove model has been used to study the changes in area under vines as a consequence of wine price increases.

The model boasts a high goodness of fit for all EU and non EU countries, as can be seen by the values of the adjusted coefficient of determination ( $R^2_{adj} \geq 0.84$ ). Looking to the behaviour of area under vine in non EU countries, where the evolution of main variables is consistent with the theoretical model, price significantly influences the number of hectares cultivated. However, supply response to price fluctuation is not always immediate but rather usually delayed a few years (4 to 8 years for New Zealand and Australia, where the wine market is less restricted; and over 10 years for South Africa, where the area available for grape production is constrained by pedological and climatic factors). These results reveal that starting from a situation of equilibrium, the size of supply is tightly linked to the market but tends to adjust to price variations in broad lags.

The income evolution and profitability of winegrape growing was also studied via an explorative analysis of Farm Accountancy Data Network (FADN) data.

In the regions selected, the indicator Farm Net Valued Added by surface has been compared between farms specialised in wine growing (wine Type of farming) and the group of farms including Type of farm Field crops and vineyards and Specialist cereal, oilseed and protein crops, in which vineyards area represent at least 10% of the agricultural utilized area (Comparable TF).

The wine growing producers always achieve higher levels of the above-mentioned income indicator. When income comparison is made by work unit (paid and unpaid) there are cases in which farms belonging to Comparable TF show higher performance. The analysis also shows that income by work unit increases with surface in every region for quality wine.

Moreover, for this purpose, a nonlinear model with a CES production function and a quadratic cost function was calibrated. First changes in wine price were simulated. The change in gross margin was significant in all EU regions except Hungarian ones. In the latter, high average UAA size combined with a high share of annual crops and lower wine output values probably softened the effect of wine price change. Conversely, in France the effect of wine price change was amplified by gross margin as would be expected given the great importance of vineyards with respect to other crops. The effect of wine price change

on optimal crop allocation was also significant showing an increase in vineyard area in all regions, with the increase being higher in regions where production costs are lower.

Changes in wine costs were then simulated. The impact of a reduction in wine costs was lower in magnitude compared to wine price changes. In other words, farmers seemed to be less sensitive to cost changes and more reactive to price changes.

This effect was true for both gross margin and change in vineyard area. In the case of gross margin, even when wine costs were reduced by 10%, the increase in gross margin reached up to +5% in France while in other EU regions it was about +2-3%.

Crop allocation and vineyard area show smaller changes than the previous wine price scenario. Even when costs were reduced by 10%, the increase in vineyard area reached values around +4-5%. The Languedoc region reached higher values given that wine gross margin is larger with respect to other crops.

Moreover, the study analyzed the evolution of the wine industry in Third Countries, where there are no constraints on production potential. One of the more interesting case studies is that of Argentina whose vineyard area grew unchecked for well over a century leading to a cyclical oversupply. The government tried to respond with legislative measures of control for more than a decade, but in the end it was necessary to grub up more than 40% of the national vineyard and create regulations enhancing production quality and exportation in order to re-establish market equilibrium.

In more recent years, similar cases of oversupply have occurred in other countries with increasing wine consumption. Australia, New Zealand and the United States have faced crisis in their wine sectors, demonstrating reductions in both grape and wine price and as well as in vineyard surface.

Finally, by comparing the available pertinent reports and the scientific literature on the economic aspects of a grape production it has been possible to set up a faceted judgement on the impact of planting rights in which certain common elements appear to agree: the elimination of planting rights could accentuate the split between capital intensive and labour intensive production, therefore with the liberalisation of planting rights, labour intensive production, mainly destined to PDO wine production, risks shrinking as the selective advantage, graduated by the relevant legislation, falls away.

The study required by the European Parliament on the proposed reform of wine CMO (2006) came to the conclusion that planting vineyards is subject to forecast errors regarding the future state of the market and production fluctuations, situations which can be exasperated at critical times when demand lacks elasticity. Therefore, planting rights are a tool for controlling supply, and their abolition would lead to: relocation of vineyards, an increase in large businesses with abundant capital and the rapid appearance of oversupply. In contrast, the wine CMO evaluation required by the European Commission (Innova, 2005), concludes that planting rights are not correlated to the market as they are inflexible and lead to lower average income than that which could potentially be achieved. This may be true for more dynamic producers, who have seen a fall in the possibilities for extending their businesses and presence on the market. Nonetheless, there is no proof that planting rights influence the market price for wine, and it has been acknowledged that they help to keep surpluses low, although they have not been able to eliminate structural excesses. Lastly, it is pointed out that planting rights have allowed small, traditional producers to continue working in a market which otherwise would have been dominated by big companies.

The results of quantitative and qualitative analyses have been used to explore some scenarios defined combining different hypotheses concerning planting rights policy and wine demand changes.

Four possible scenarios will be considered: a) stable demand, while keeping planting rights, b) stable demand, while removing planting rights, c) increase in the demand, while keeping planting rights, d) increase in demand, while removing planting rights.

In the first outcome, any adjustment to the offer is not stopped but it is channelled toward the stability of the current industry structure, probably combined with a trend of slow increase of the average size of grape producing farms.

Within the second scenario, in case of temporary or local situation of wine price increase the offer should adjust to price very slowly. Nevertheless the liberalisation could work as a signal encouraging new plantings, which could determine a greater instability of market.

In the third and fourth outcomes, an increase in demand would require to EU countries a supply growth to at least defend market shares.

Maintaining planting rights, as in scenario 3, the EU wine supply can follow demand increase up to 15%, through a full utilization of the production potential and a reasonable increase of yields. Above the threshold of 15% a reduction of EU wine market shares would occur, associated with a relevant increase of grape and wine prices in the inter-industry markets.

Under the hypothesis of planting right liberalization (scenario 4), the EU wine supply would be free to follow the rise of demand, but with the risk of inducing a process of enlargement of the production potential which could end in a situation of oversupply, determined by the lagged response of area under vine to the market signals, as indicated by the experience of some Third Countries.

## **Managing the post-2015 scenario**

The planned abolishment of planting rights represents one of the most controversial points of the CMO for the wine sector. Since in the framework of the current process of CAP reform the issue of a revision of the abolishment of planting rights scheme has not yet been formally taken into account, a strong reaction has occurred, supported both by a relevant groups of producer countries and by the representatives of the wine producing system. In fact, in spring 2011, the representatives of 12 Member States (MS) (Germany, France, Italy, Cyprus, Luxembourg, Hungary, Austria, Portugal, Romania, Spain, Slovakia and Czech Republic) have signed a letter to stimulate the European Institutions to reconsider the decision to liberalise planting rights, citing in evidence a list of possible risks connected to the abandonment of the current scheme – a new over production, a further depression of the less favoured areas in which grape growing plays a relevant role, the possible abandonment of small farms, the negative impact on the reputation of PDO, a progressive standardization of production, an excessive industrialization of growing methods – considering as a preferable option the maintenance of mechanisms of production potential control.

The analysis of the CMO for wine implementation in the period 2008-2011 shows both a difficulty in implementing new measures introduced in 2008 and a still relevant interest for the measures in phasing-out. It also appears clear that the distribution of resources is still deeply influenced by specific characteristics of the CMO, as witnessed by the small role of the single payment scheme. In fact the 60.8% of programmed expenditures has been until now addressed in favour of proactive measures aimed at the improvement of quality of production and competitiveness. In the meantime, another relevant amount of resources

(29.3% of the total in the same period) has been addressed to support measures involved in the pursuit of supply control. So the traditional measures of the first pillar, focused on income support to producers (single payment scheme, mutual funds, harvest insurance), have benefited from less than 10% of global resources.

This notwithstanding, it seems that the EU Commission has decided to confirm the measures taken in 2008, without proposing to revise or adjust the current rules, even if it has recently decided to appoint a High Level Group to discuss the issue.

Given this background, it should be borne in mind that the question of maintenance or abolition of planting rights is a matter that should not be considered outside a general evaluation of the functioning of the CMO and its application across the EU. Moving from this idea, it is possible to design four different scenarios which take into consideration the different options of reform available for the European Commission and European Parliament in this phase of discussion by, first of all, a full implementation of 2008 decisions; the second one, a partial reform of current CMO; the third, the reform of plantings rights scheme; the fourth option, a global reform of the CMO.

Options 2 and 4 have been examined, exploring both the opportunity to confirm the decision of 2008 to reach a liberalisation of vineyards and the opportunity to confirm the planting rights scheme after 2015 (or 2018), with renewed rules of management, eventually associated to a possible revision of other specific measures of the CMO.

As for the first choice, the reinforcement and revision of current instruments included in the CMO for wine on one side, and the introduction of new instruments on the other side, have been considered.

Regarding the reinforcement and revision of measures of NSPs, promotion, restructuring, investments, mutual funds and harvest insurance have been taken into account.

As for the promotion, it plays a crucial role in sustaining the competitiveness of European wine supply and it is a candidate to absorb a relevant share of the wine budget in the CMO. To improve the capacity of the measure, in order to apply it also after the CAP reform, it seems important to strengthen its flexibility, giving importance not only to promotion in third countries, but also in the internal market. Among the improvements, also the reducing of administrative burden should be taken into account, as linked to promotion funding, since the current scheme is usually considered quite complicated.

As for restructuring and conversion of vineyards, it is operating successfully from the 1999 reform on, but it should be reconsidered, focusing on cost saving.

Also the investments measure should be revised, since support to tangible or intangible investments in processing facilities, winery infrastructure and marketing of wine was included in the 2008 reform without a clear idea on structuring the measure. The need to counterbalance risks linked to the abolishment of the planting rights regime makes it urgent to reflect on the strategic needs of the European wine industry. In this perspective the investments measure should be implemented with a high level of innovativeness and immateriality, aiming to enforce some European supply systems; this intervention could allow them to better compete with large enterprises of the new world, exploiting the same economies of scale.

Among the measures of NSP that could potentially compensate for the abolishment of the planting rights regime, the tools offered by mutual funds and harvest insurance could turn out to have only a little role, unless a rethinking of their function and features would be undertaken. Harvest insurance absorbed in fact just a limited amount of resources, also because of the possibility to finance it with other CAP measures (Art. 68 from the Health Check). Lack of incentives and displacement by other risk measures could even become

stronger in the wake of the new risk management package envisaged in the draft new regulation on rural development measures. So, looking for a rationale of keeping risk management measures also in the wine CMO, specific provisions might be more strictly linked to the operation of Producer Organizations (POs). On the one hand POs could be in a good position to boost and perform mutual risk management functions, such as, creating mutual funds and widening risk pooling through insurance networking with other funds and insurances, or managing financial derivatives to hedge price risk. On the other hand, providing specific incentives to POs implementing risk management measures could increase the attractiveness of POs to producers and, by doing so, strengthen an instrument capable of dealing more effectively with the impacts of the abolishment of the current planting rights regime. Along with the existing and predictable risk and crisis management tools, a further instrument for risk management and crisis prevention is to be considered: the implementation of market intelligence activities which may help in anticipating possible temporary or structural crises that could be better managed and prevented with timely intervention.

Among these measures of support, restructuring, promotion and investments are the three which would be able to enhance the structure of the European wine industry operating along the whole supply chain. They should be used at least partially in a targeted way to support the wine supply in the less favoured areas, in order to enable such supply to sustain the competition with new producers located in more cost effective areas. Anyway each of such measures should be improved in order to fully deploy their potential.

The latent risk of overproduction linked with the abolishment of the planting rights regime suggests operating also on the side of regulatory measures: enrichment, producer organisations and inter-branch organisations.

As for the enrichment, in order to constrain the artificial increase of the sugar content of must, the enrichment should be allowed only using concentrated must or physical practices; moreover, the limits for enrichment should be reduced at least to the level included in the first reform proposal (COM(2006) 319).

Among the measures to improve the producers' bargaining power, the producer organizations (POs) can provide a useful tool in restoring balance of market relations, acting as a contractual power and redistributing added value. The POs are in fact an important tool in governing agricultural production which, by means of functions such as aggregation and concentration of production, as well as planning and enhancing supply, enable producers to regain strategic levers (differentiation and recognisability of products, information, etc.) and the chance to put themselves on the market in a more competitive condition. Even if in recent years the development of these forms of producer associations did not occur, they should be implemented in a liberalised planting rights regime, borrowing some instruments from the fruits and vegetables reform.

POs in wine sector could in fact use the operational programmes for supply management and for the implementation of business strategies, in order to achieve, both a greater ability to plan the supply of adaptation of demand (qualitative and quantitative), and a more efficient common commercial strategy. It could also be suggested to integrate, also for the wine sector, the functions of POs with the management of aid for crisis prevention and management measures. As for the minimum size criteria for recognition of a producer organization, they could include annual production and a minimum number of producers or a share of the market/regional production, leaving flexibility to MS on the final decision of these criteria.

Also Interbranch organizations (IBOs) represent an important tool for rebalancing power relations and improving value added distribution among all actors in the supply chain, and

also for them the reference sector is the fruit and vegetables one, in which interbranch organizations and agreements represent consolidated instruments of supply chain management for some products and specific areas. Moreover, in the wine sector Member States could be able to implement decisions taken by interbranch organizations, in order to improve the operation of the market for wines, excluding practices which could distort competition.

As for the new instruments, which can be proposed to make the liberalised market of wine function, the ones included in the milk package can be useful. In particular, provision of written contracts would enforce the bargaining power of farmers, since, in a liberalised market, they too often are exposed to volatility of prices and they risk not covering production costs. In fact, at the grape production level there is a certain percentage of cooperatives and individual grape growers who sell grapes to the intermediate market for the production of bulk wine. At this stage of the supply chain the grape price can be very low, given the market supply. As a consequence, between producers and the intermediate grape market there is the same imbalance we can find in the milk supply chain, since producers have a low bargaining power and the price payable for the delivery is not always set out in advance, at the expenses of producers themselves.

Also at the wine production level a similar problem can rise, since a certain percentage of the bulk wine produced by the involved actors – cooperatives, vertical integrated producers, wine industries – is sold to the intermediate wine market to be transformed into finished goods for the final market. Bulk wine is often bought by big wine industries or fillers which greatly contribute to the formation of an intermediate demand of wine. So they have greater power than the wine producers in the setting of the price.

As for PDO and PGI wines, the risk of an increase in the supply side of a particular PDO or PGI wine, due to a multiplication of producers in a specific area, could be resolved enforcing the market measure provided by Article 68 of EU Reg. n. 479/2008 for the regulation of the supply, to serve as a wider rule which allows interbranch organizations to plan the production of grapes to be transformed into high quality wines on a pluriannual basis, thereby regulating the entry in the wine market of other actors.

As for the fourth option already mentioned, the scenario of confirming the planting rights after 2015 (or 2018) could be accompanied by a “renewed” scheme, based on a different mechanism of functioning to overcome the most relevant inefficiencies which emerged from the current rules and to ensure a better flexibility of potential.

The structure of a renewed planting rights regime should be based on an improved market for planting rights, taking into account both technical rules for the exchange of planting rights and enlargement of boundaries for the exchange of planting rights. It also should consider a procedure to periodically evaluate and modify the aggregate size of the EU production potential and eventually to distribute among MS/regions additional planting rights, thereby preventing the phenomena of speculation in some countries and regions. A proposal is to introduce an auction mechanism, with standard rules defined by the EU.

A new planting right regime with less constraints on planting rights circulation should be combined with an optional (up to MS) grubbing up scheme, with a mechanism similar to that established by the previous Reg. 1493/99, but with some modified funding rules.

Anyway, to avoid the risk of rigidity for a European vineyard constrained by a planting rights scheme, it is necessary to have an efficient management system of the size of the potential, with the ability to increase, if necessary, the amount of planting rights available on the market. This role could be assigned to an EU agency, but in the framework of a general activity of programming of production development at MS level.



In a renewed planting rights regime, the mechanism to replace the reserves should no longer play only the role of distributor of planting rights to reach specific political objectives, but the reserve should be mainly oriented at the management of the increase of the potential.

To this end, it appears strategic to ensure the availability of reliable data (production, consumption, internal and external market quotas, prices, evolution of preferences) and the production of periodical analysis about market evolution, on which should be justified the new authorizations. The distribution of additional planting rights among MS/regions should be conditioned by the status of the Inventory.

A more effective register, in force after 2015, matched with information about market situation should permit the better control of wine supply, putting in relation the data of the vine register with the planting rights distribution.

## Conclusions

The Study gives some detailed indications on how the future policy action for the wine sector should be organised in the case of liberalisation of vine plantation, or the maintenance of the planting rights regime.

Many actors of the wine industry have taken part in the debate on the planting rights issue but the outcome of the discussion is still characterized by only general positions. Both those in favour of liberalization and those who are favourable to the maintenance of planting rights claim that each choice has to be adopted in the framework of a more developed set of measures; but such a set of measures has not been clearly indicated with regard to any of the two options under discussion.

Summarising, most of the expressed positions are in favour of maintaining the system of planting rights for all types of wine, stressing the negative consequences (economic, social and environmental) of the abolition of the scheme and pointing out that the current system does not entail any cost to the CAP budget. Others highlight the importance of a different application of the planting rights scheme for MS (allowing each Member State to establish a more complete regulation adapted to its context), and for types of production/vineyard (allowing a better adaptation of the production to the market). Generally, the need for supply control measures is stressed, assigning greater importance to the role of POs or IBOs in the management of the production potential (in accordance with national and local institutions).

The wine market is so segmented and the wine industry so complex that it is impossible to envisage a model from which to derive a clearly identified "Optimal decision" suitable for all actors and wines (PDO, PGI, varietal and common). Nevertheless, it is possible to: analyse both the advantages and the risks of the two different options, suggest specific actions to counterbalance the more relevant negative consequences and put in evidence the implications in terms of reforming the current CMO for the wine sector.

The expected advantages of the liberalisation are related to cost and supply flexibility. It is expected that a cost reduction may be reached via the elimination of the direct and indirect costs for planting rights search and acquisition and eventually the economies of scale linked with more suitable sizes of vineyards.

On the side of the risks and the countermeasures necessary in case of the liberalisation:

- the abolishment of the planting rights regime could determine the dismantling of the inventory; in this case the EU would lose a useful tool to monitor the quantitative and qualitative evolution of potential and for predicting supply evolution;

- the abolishment of the constraint on the potential determines a risk of oversupply. The risk related to the critical oversupply can be mitigated using risk management tools and the risk related to structural oversupply can be mitigated with a self reduction of supply operated by IBOs and POs;
- the liberalisation could be interpreted by operators as a message from the EU encouraging investment in new vineyards, starting a process which could result in an excessive increase of supply. This risk can be mitigated with a pervasive information campaign about the situation of the market;
- the liberalisation may reduce the entry barrier in the sector and may facilitate the reorganisation of supply chains. The weaker players which are not able to adopt individual strategies of monopolistic concurrency are exposed to serious risks of erosion of their competitive advantage. This risk can be mitigated by the adoption of an integrated set of measures (i.e. measures to support weaker grape growers/wine makers and strategic management of supply by IBOs);
- the impact of liberalisation on the competitive scenario of the wine market can in principle influence the competitive advantage of grape and wine producers located in marginal areas. Anyway this moderate risk can be mitigated with facilitated access to support via structural measures and a specific implementation of single payments.

The expected advantages of the maintenance of the planting rights regime are related to supply control, stability of the competitive position of actors currently present in the competitive arena and prevention of risks for the environmental and socioeconomic stability of marginal areas.

On the side of the risks and the countermeasures necessary in case of the maintenance of the planting rights regime:

- the constraint on the dimension of the production potential and the difficulties in the circulation of planting rights, which are particularly serious in some regions, can hamper the adaptation of EU wine supply to the qualitative changes of demand across the world;
- the current planting rights regime, characterized by many constraints to a free circulation and by the absence of an official system regulating exchanges, may lead to an increase of costs for the acquisition of planting rights. The risk of increase of planting rights cost can be mitigated by: a) making more efficient the functioning of the planting rights market in order to reduce the intermediation costs and b) managing the availability of planting rights through the dimension of the areas within which the rights can be traded and the dimension of the potential inside each area.

The implementation of the two options has different implications in terms of impact on the EU wine industry and changes in the structure of the EU wine policies.

The liberalisation should determine an easier evolution of the EU wine supply, giving more space to the new options in wine presentation linked with the possibility to indicate variety and vintage year in non PDO/PGI wines. In terms of compliance with the CMO reform in 2008, the liberalisation looks to comply with the "competitiveness objective" as regard the enlargement of market quotas. The compliance with the other objectives is dependent on the accompanying measures adopted.

The maintenance of a planting rights regime should protect the current structure of the industry, privileging the traditional shape of EU wine supply. In terms of compliance with the CMO reform of 2008, the maintenance of a planting rights regime looks to comply with the "search for higher quality" and the "socioeconomic stability of the sector".



compliance with the other objectives is dependent on changes in the accompanying measures.

Summarising:

- The implementation of countermeasures defined to mitigate risks linked with liberalisation would determine deep changes in CMO organisation. It would require a substantial effort in policy design and in the effective and coordinated management of the different tools in each MS/Region.
- The implementation of countermeasures defined to mitigate risks linked to the maintenance of a planting rights regime is rather simple, but it is necessary to stress that it is possible to envisage some difficulties related to the objective complexity of the decisions related to changes in potential size and to the definition of dimension of planting rights exchange areas; in addition the political bargaining among many stakeholders could make the decision process more difficult.

Anyway, also in the case of maintenance of the planting rights regime, the recommendation is for the implementation of a large part of the actions defined as countermeasures in case of liberalisation.

## 1. GENERAL OVERVIEW OF WORLD WINE MARKETS

### KEY FINDINGS

- In the recent years there has been a relevant increase of wine consumption in non-producing countries, as opposed to the decline in traditional producers. In the meantime, the five major new producers grew at a faster pace than EU ones (27.7% of the market).
- There are different types of wine directed at different market segments, which are evolving differently. Different types of products are traded differently, react differently to economic conditions and imply very different conditions of production.
- There are different wine segments, requiring different types of producers, companies, strategies, regulation frameworks and policies (private and public), to finally be efficient and competitive at each market and price point.
- The combined action of demand, distribution and new players on the market has induced, indeed, a change in the wine market, transformed from a business of a strongly agricultural nature guided by supply, to a sector of the foodstuff industry.
- Among the 40 largest wine companies in the world, 23 belong to the EU and of these 5 are cooperatives. In structural and strategic terms, this does not appear very different from those of the new world.
- The current structure of the European wine industry will be exposed to changes driven by the opportunities linked to economies of scale and organizational economies, which will probably determine an increased competitive advantage for the big companies.

According to OIV figures - the most reliable among those existing -, our planet lost 2.7 million hectares (mha) of vineyards in the last 32 years, between the average in 1976-80 and 2010. Giving that world wine production and commercialisation is a game among quite a few players, we may distinguish different trends in such loss, with the EU losing 2.1 million hectares, the so called "*new world players*" gaining 0.2 million and the rest of the world losing 0.8 mha of grape surface, despite the more recent increase in China. The relevant question as far as this analysis is concerned is to what extent such evolution in planting has been related to market conditions and the evolution of competitiveness among players.

Table 1.1. - Evolution of vines surface in the world

000 Hts													%s/total		CARG	Ch. 2010-76/80	
	76-80	81-85	86-90	91-95	96-00	2001-05	2005	2006	2007	2008	2009	2010	76-80	2010	1978-2010 <sup>1</sup>	000 Hts	%
Spain	1,717	1,622	1,506	1,290	1,183	1,200	1,180	1,174	1,169	1,165	1,113	1,082	16.8%	14.3%	-1.4%	-635	-37.0%
France	1,230	1,094	996	940	915	894	895	887	867	852	837	825	12.0%	10.9%	-1.2%	-405	-32.9%
Italy	1,389	1,215	1,063	985	909	863	842	844	838	825	812	798	13.6%	10.6%	-1.7%	-591	-42.5%
Portugal	364	369	282	269	257	248	248	249	248	246	244	243	3.6%	3.2%	-1.3%	-121	-33.2%
Romania	301	302	244	251	253	234	217	213	209	207	206	205	2.9%	2.7%	-1.2%	-96	-31.8%
Rest EU	718	677	603	569	524	461	444	444	507	491	481	476	7.0%	6.3%	-1.3%	-242	-33.7%
<b>Total EU</b>	<b>5,719</b>	<b>5,279</b>	<b>4,694</b>	<b>4,304</b>	<b>4,041</b>	<b>3,900</b>	<b>3,826</b>	<b>3,811</b>	<b>3,839</b>	<b>3,787</b>	<b>3,694</b>	<b>3,630</b>	<b>56.0%</b>	<b>48.1%</b>	<b>-1.4%</b>	<b>-2,089</b>	<b>-36.5%</b>
USA	303	337	329	331	376	410	399	399	397	398	398	398	3.0%	5.3%	0.9%	95	31.4%
Argentina	350	314	259	209	208	211	219	223	226	226	228	228	3.4%	3.0%	-1.3%	-122	-34.9%
Chile	124	122	124	124	147	186	193	195	196	198	199	200	1.2%	2.6%	1.5%	76	61.3%
South Africa	112	194	100	102	111	131	134	134	133	132	132	131	1.1%	1.7%	0.5%	19	17.0%
Australia	68	67	59	65	106	159	167	169	174	173	176	170	0.7%	2.3%	2.9%	102	150.0%
New Zealand			5	6	11	10	25	27	30	35	37	37	0.0%	0.5%	9.5%		
<b>Total NewWorld</b>	<b>957</b>	<b>1,034</b>	<b>876</b>	<b>837</b>	<b>959</b>	<b>1,107</b>	<b>1,137</b>	<b>1,147</b>	<b>1,156</b>	<b>1,162</b>	<b>1,170</b>	<b>1,164</b>	<b>9.4%</b>	<b>15.4%</b>	<b>0.6%</b>	<b>207</b>	<b>21.6%</b>
Turkey			636	615	584	564	555	552	521	518	505	500	0.0%	6.6%	-1.1%		
China			148	153	218	423	439	450	475	480	485	490	0.0%	6.5%	5.6%		
Rest of the world	3,537	3,510	2,459	2,182	1,903	1,884	1,867	1,858	1,758	1,760	1,761	1,766	34.6%	23.4%	-2.1%	-1,771	-50.1%
<b>Total others</b>	<b>3,537</b>	<b>3,510</b>	<b>3,243</b>	<b>2,950</b>	<b>2,705</b>	<b>2,871</b>	<b>2,861</b>	<b>2,860</b>	<b>2,754</b>	<b>2,758</b>	<b>2,751</b>	<b>2,756</b>	<b>34.6%</b>	<b>36.5%</b>	<b>-0.8%</b>	<b>-781</b>	<b>-22.1%</b>
<b>TOTAL WORLD</b>	<b>10,213</b>	<b>9,823</b>	<b>8,813</b>	<b>8,091</b>	<b>7,705</b>	<b>7,878</b>	<b>7,824</b>	<b>7,818</b>	<b>7,749</b>	<b>7,707</b>	<b>7,615</b>	<b>7,550</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.9%</b>	<b>-2,663</b>	<b>-26.1%</b>

Source: Data OIV; elaboration OeMv.

In the meantime, global production of wines has shown a reduction of more than 78 million hectolitres (Table 1.2), with a change (%) that is similar to that recorded for surfaces. In either case it should be noted the substantial reduction in the role of EU traditional producers (France, Italy and Spain), whose role of supremacy is confirmed in 2010 despite the significant positive rates of change of new world's producers. Within the EU, despite the progressive reduction of the total wine production, there was a progressive strengthening of products with a geographical origin (PDO/PGI). In 2010, these typologies assumed a weight of about 75% in France, 60% in Italy, 44% in Spain, and up to almost 100% in Germany and Hungary.

Table 1.2. - Evolution of wine production in the world

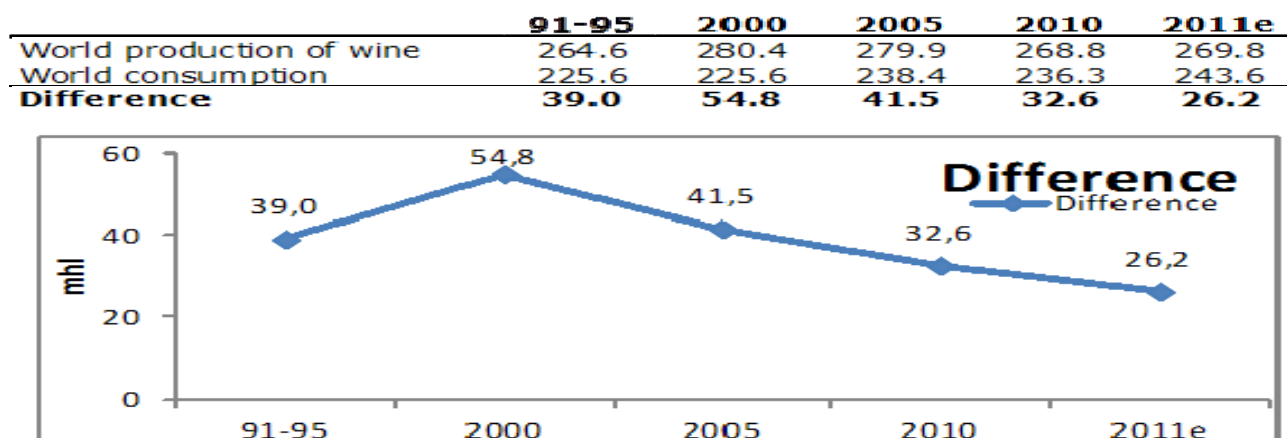
000 Hts													%p/total		CARG	Ch. 2010-78/80	
	78-80	81-85	86-90	91-95	96-00	2001-05	2005	2006	2007	2008	2009	2010	78-80	2010	1978-2000	000 Hts	%
Spain	40,023	33,671	33,602	26,710	33,681	37,439	36,437	38,907	35,209	37,367	32,506	36,100	11.7%	13.8%	1.7%	-3,923	-9.8%
France	70,998	68,178	65,424	54,231	57,976	52,685	53,442	53,493	47,116	42,689	46,792	45,418	20.8%	17.3%	-0.1%	-25,580	-36.0%
Italy	81,377	71,946	65,834	61,325	55,727	48,937	50,567	49,633	42,514	46,036	46,245	45,800	23.9%	17.9%	-1.1%	-35,577	-43.7%
Portugal	10,433	9,219	8,200	7,108	6,884	7,194	7,064	7,338	5,867	5,620	6,100	5,872	3.1%	2.2%	0.8%	-4,561	-43.7%
Romania	8,032	9,579	7,133	5,529	6,107	5,211	2,602	5,014	5,355	5,542	4,957	1,255	2.4%	0.5%	-1.2%	-6,777	-84.4%
Rest EU	24,811	28,488	26,448	24,946	25,029	23,465	22,104	22,342	22,672	24,347	21,458	16,686	7.3%	6.4%	-0.1%	-8,125	-32.7%
<b>Total EU</b>	<b>235,673</b>	<b>221,080</b>	<b>206,641</b>	<b>179,849</b>	<b>185,405</b>	<b>174,931</b>	<b>176,728</b>	<b>158,732</b>	<b>161,660</b>	<b>158,058</b>	<b>151,131</b>	<b>69.1%</b>	<b>57.6%</b>	<b>-0.2%</b>	<b>-84,542</b>	<b>-35.9%</b>	
USA	16,737	16,883	19,081	17,619	22,235	24,900	28,880	22,500	22,599	22,465	22,316	22,113	4.9%	8.4%	2.3%	5,376	32.1%
Argentina	23,368	21,250	19,914	15,587	13,456	14,488	15,222	15,396	15,046	14,676	12,136	16,251	6.9%	6.2%	-1.7%	-7,117	-30.5%
Chile	5,798	5,035	3,871	3,326	5,066	6,429	7,886	8,024	7,918	8,683	9,889	9,152	1.7%	3.5%	0.8%	3,354	57.8%
South Africa	6,478	7,486	7,553	7,345	7,837	8,040	8,406	9,398	9,783	10,165	9,987	9,217	1.9%	3.5%	0.6%	2,739	42.3%
Australia	3,630	3,929	4,285	4,810	7,300	12,317	14,338	14,298	9,620	12,448	11,423	11,339	1.1%	4.3%	6.0%	7,709	212.4%
New Zealand	432	501	439	443	568	837	1,020	1,332	1,476	2,052	2,000	1,888	0.1%	0.7%	2.1%	1,466	339.7%
<b>Total NewWorld</b>	<b>56,443</b>	<b>55,093</b>	<b>55,093</b>	<b>49,130</b>	<b>56,541</b>	<b>67,010</b>	<b>75,752</b>	<b>70,948</b>	<b>66,441</b>	<b>70,519</b>	<b>67,730</b>	<b>69,970</b>	<b>16.6%</b>	<b>26.7%</b>	<b>0.7%</b>	<b>13,527</b>	<b>24.0%</b>
Turkey	170	168	222	275	311	256	260	252	213	245	233	280	0.0%	0.1%	2.2%	110	64.8%
China	417	1,502	2,734	5,140	9,581	12,100	13,500	14,000	14,500	15,000	15,800	16,575	0.1%	6.3%	300.0%	16,158	3878.0%
Rest of World	48,257	52,579	33,512	28,798	22,688	24,013	23,521	22,870	24,303	24,147	23,821	24,217	14.2%	9.2%	-2.1%	-24,040	-49.8%
<b>Total others</b>	<b>48,843</b>	<b>54,249</b>	<b>36,468</b>	<b>34,213</b>	<b>32,530</b>	<b>36,369</b>	<b>37,281</b>	<b>37,123</b>	<b>39,016</b>	<b>39,392</b>	<b>39,853</b>	<b>41,072</b>	<b>14.3%</b>	<b>15.7%</b>	<b>-1.0%</b>	<b>-7,771</b>	<b>-15.9%</b>
<b>Total World</b>	<b>340,959</b>	<b>330,422</b>	<b>298,202</b>	<b>263,192</b>	<b>274,526</b>	<b>278,310</b>	<b>285,249</b>	<b>284,798</b>	<b>264,189</b>	<b>271,572</b>	<b>265,642</b>	<b>262,172</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-0.2%</b>	<b>-78,786</b>	<b>-23.1%</b>

Source: Data OIV; elaboration OeMv

## 1.1. The world of wine: production and consumption

With the remaining 7.55 mha (2010), our planet produces 645 million qs of grapes, both for direct consumption (particularly important in China, Turkey, India and Iran) and for conversion into must, of which around 270 million hectolitres (mhl) become wine and must<sup>1</sup>. With worldwide consumption estimated around 244 mhl, these figures show a difference between production and wine consumption which has varied in the last years between 55 and 26 mhl. However, such differences include industrial products such as vinegar, desired stocks for quality wine ageing and stocks of unsold wine. Nevertheless, world wine consumption has remained pretty stable in the last years around 240 mhl, and even increasing from the 222 mhl figure in 1996 to the peak in 2007 at 247 mhl, prior to the more recent economic crisis. Therefore, we are talking about an economic sector with a relatively stable demand in recent years.

**Figure 1.1. - World wine production and consumption**



Source: Data from GTA, elaborated by OeMv

A demand, however, which is clearly changing among different markets of consumption. Thus, taking as a reference the high consumption data in the 1970's, the 285.7 mhl then consumed worldwide, were mainly drunk in continental Europe, with France, Italy, Spain and Portugal accounting for 46.9% of such consumption. In the same period 1976/80, other producers and consumers including the United States, Germany, Argentina and Australia accounted for almost 20% of total consumption and the rest of the world took one third of it. OIV estimates for 2010 show great differences, with the first group of net producers down to 29.1% of total consumption, the group of producers and large consumers increasing to 26.4% and the rest of the world now accounting for 44.4% of total consumption. Therefore, large European producers, together with Argentina, have been responsible for most of the reduction in world consumption, whereas non producing countries are drinking more wine, leading to certain stability in worldwide consumption.

Actually, such change in world wine consumption is affecting not only the types of wine which are consumed, but also the way in which wine itself is considered as a product, as well as the way it is produced, shipped and traded. It is also changing perceptions as to how wine should be legislated, considering that new wine consumers are less influenced by traditional perceptions and much less concerned about how wine production should be

<sup>1</sup> Average between OIV estimations for 2011 harvest: 264.3 / 275.2 mhl.

protected. With the sound entrance of new producers in the late 90's, coming from places like Chile, Australia, South Africa, New Zealand and California, the old world which dominated most of both world production and consumption, was shaken up. *New producers*<sup>2</sup> took advantage of, or profited from, the increase in wine consumption in Anglo-Saxon markets. During the same 30 years in which surface of vines declined, wine consumption decreased by almost 50 mhl (-17.3%), but major producers (mainly European, but also including Argentina) lost nearly 77 mhl (almost half of what they previously consumed), whereas other large producers like USA, Germany and Australia increased by 18 mhl (+52.5%) and some large non – producing markets increased their consumption by more than 14 mhl (more than three times, from 7.1 mhl to 21.7 mhl). Again, major trends in world wine consumption indicate that the great revolution in recent years has been the increase of wine consumption in non producing countries, as opposed to the decline in traditional producers, enhancing, thus, international wine trade.

**Table 1.3. - Wine consumption in different markets**

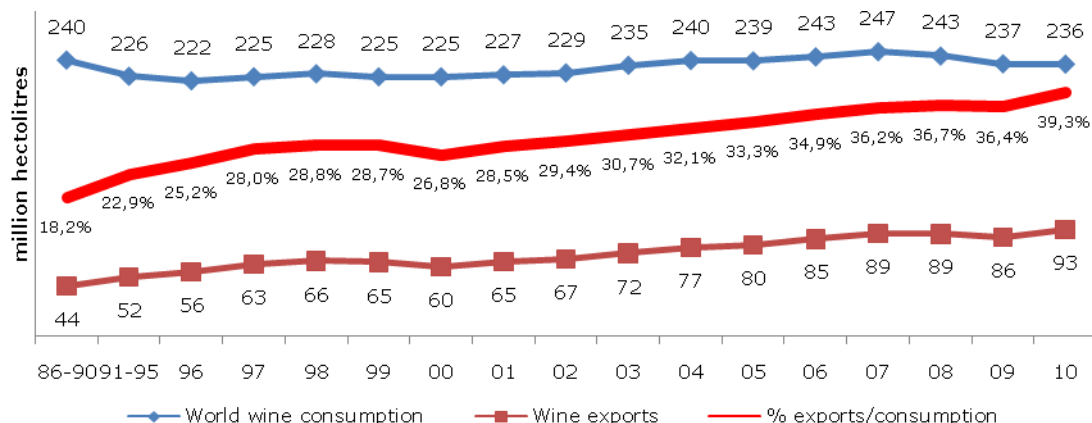
<i>000 hlts</i>	<b><u>1976/80</u></b>	<b><u>2000</u></b>	<b><u>2010</u></b>	<b><u>Chq 2010-76/80</u></b>	
a) Traditional producers					
France	51,567	34,500	29,438	-22,129	
Italy	51,328	30,800	24,500	-26,828	
Spain	23,319	14,046	10,600	-12,719	-76,912
Portugal	7,686	4,595	4,447	-3,239	
Argentina	21,711	12,491	9,714	-11,997	
b) Other producers and consumers					
United States	16,143	21,200	27,110	10,967	
Germany	16,311	20,150	20,205	3,894	18,120
Australia	2,066	3,899	5,325	3,259	
c) Non producing importers					
United Kingdom	3,642	9,146	13,200	9,558	
Denmark	625	1,550	1,930	1,305	14,518
Netherlands	1,587	3,100	3,470	1,883	
Belgium	1,329	2,400	3,101	1,772	
Rest of the world	88,432	61,652	83,210	-5,222	-5,222
<b>Totals</b>	<b>285,746</b>	<b>225,091</b>	<b>236,250</b>	<b>-49,496</b>	<b>-49,496</b>

Source: Data from GTA, elaborated by OeMv

Such different patterns in wine consumption are also reflected in the tendency of world wine trade, which has evolved from 18.2% of world wine consumption in the last 80's to almost 40% in 2010. Following this trend, internationally traded wine will rapidly approach 50% of total wine consumption in the near future. Probably as part of the general trend of globalisation which also affects patterns of consumption and habits, wine is no longer a beverage to be drunk mainly in producing countries. The opposite is true, wine consumption is declining in traditional wine producing countries, while increasing in markets previously closer to beer.

<sup>2</sup> Not that *new*, actually, since wine had been produced in some of these countries for centuries, but named as such for the new role they started to play as large wine exporters.

**Figure 1.2. - Wine consumption and trade**



Source: Data from GTA, elaborated by OeMv

## 1.2. World wine trade

World wine trade is estimated at 93.7 mhl for a total value of 20.900 million euro, at an average price of 2.23 €/litre<sup>3</sup>. As mentioned, such figures have been reached following a stable increase at a pace of 3.5% per annum<sup>4</sup> in the last 22 years, with the only exception being seen at the beginning of the new century, when a small decrease took place. Quite good figures showing a positive trend, when considering that only during this century has wine trade increased by 73% in terms of value and almost doubled in terms of volume. However, such trends show a negative evolution of average prices, with a reduction in 10 years of 10%, which is making wine business much tougher.

**Table 1.4. - Evolution of world wine trade**

	2000	2010	Ch million	Ch. %
Million €	12,051.4	20,900.1	8,848.7	73.4%
Million Ltrs	4,882.4	9,368.2	4,485.7	91.9%
€/l	2.47	2.23	-0.24	-9.6%

Source: Data from GTA, elaborated by OeMv

Actually, under the word “wine” we refer to different types of products which are traded differently, react differently to economic conditions and imply very different conditions of production for products sometimes directed to different market segments. Limited to what official trade statistics offer us, we may analyse three major kinds of wine, namely sparkling, bottled and bulk wine<sup>5</sup>. In brief, leaving aside the figures for must which

<sup>3</sup> Estimates by Global Trade Atlas, elaborated by the Spanish Observatory of Wine Markets (OeMv) with figures officially provided by the countries’ departments of Customs.

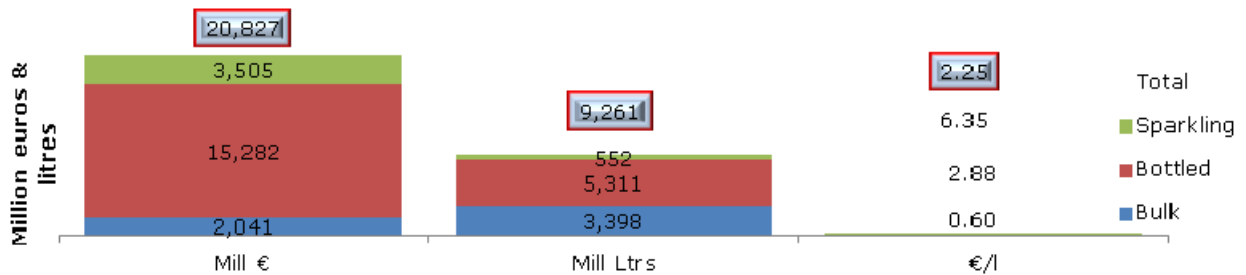
<sup>4</sup> Compound annual growth rate since 1986-90 to 2010.

<sup>5</sup> Under “bulk wine” all wines traded in bottles or containers above 2 liters of capacity are included, which means that bag in box is part of it.

represent a small percentage, wine trade is made up of 73% of bottled wine, 10% of bulk and 17% of sparkling, as far as value is concerned. However, in terms of volume, bottled wine declines to 57%, sparkling to 6% and bulk wine accounts for up to 37% of total wine exported, and rising due to recent concerns of both economic competitiveness and environmental care. In different terms, Rabobank normally classifies wines in a series of groups from icon to basic, through ultra-premium, super-premium, premium and popular premium<sup>6</sup>. Both examples give the same idea of different products behaving differently both at production and market level.

According to data provided by Wine Intelligence for the off-trade US market volume, as an average of the 15 most important states, in 2010, the price segment between \$5 to \$9.99 accounts for 72% of total wine imports. In that particular segment, the European countries have around 45% share and the new world countries amount to around 55% share. The next segment between \$10 and \$14.99, the European countries increase their share to around 55% whereas the new world countries diminish theirs to 45%. This segment attracts 9% of total imports. For higher price segments, the European countries increase their shares and the new world countries diminish theirs down to around 25%, but altogether those segments account for 4% of the volume although a greater percentage in expenditure. This means that new world wines are competing with European wines in all price segments but especially in segments that attract the greatest imported volume, where they are direct competitors.

**Figure 1.3. - World wine exports by type - 2010**



Source: Data from GTA, elaborated by OeMv.

As in the case of production and consumption, world wine trade is also a game played among quite a few major players, specially as far as exports is concerned. In 2010, 10 countries accounted for 90.6% of total exports, while the 10 largest markets bought ¾ of total wine imported. Again, players have evolved very differently in recent years. Since the mid '90s, new world producers have strongly entered world wine trade applying a very different business approach. Larger companies, sometimes related to large multinationals involved in spirits, with new marketing strategies and strong efforts to achieve national strategic plans, in more flexible legal frameworks and clearly concerned of their need for competitiveness (the business side of wine), achieved larger market shares, especially in booming Anglo-Saxon markets. In the meanwhile, European traditional producers initially thought that would be a passing fashion with effects neither on production countries nor in wine markets. As time kept on showing similar trends at the change of the century, more producers in Europe started to worry about the situation. However, with figures in value terms worsening for new producers in recent years (specially for Australian companies),

<sup>6</sup> Among others, Rabobank, 'Wine is Business. Shifting demand and distribution: major drivers reshaping the wine industry'. Madrid 2003.



today there is no clear answer to the question initially raised on which model is better for selling wine in our world. What figures actually show is that new producers have obtained a place in world wine trade.

**Table 1.5 - World wine trade - major players 2010**

Major Exporters			Major Importers		
Country	Mill Hltrs	%	Country	Mill Hltrs	%
Italy	21.6	23.0 %	Germany	14.8	16.8 %
Spain	17.5	18.6 %	UK	12.9	14.6 %
France	13.5	14.4 %	USA	9.4	10.7 %
Australia	8.0	8.5 %	France	6.0	6.8 %
Chile	7.3	7.8 %	Rusia	5.3	6.0 %
USA	4.0	4.2 %	Netherlands	3.7	4.2 %
Germany	3.9	4.2 %	Canadá	3.5	4.0 %
South Africa	3.9	4.2 %	Belgium	3.0	3.4 %
Argentina	2.8	3.0 %	China	2.9	3.3 %
Portugal	2.5	2.7 %	Japan	2.0	2.3 %
Rest	8.8	9.3 %	Rest	24.7	28.0 %
<b>World</b>	<b>93.8</b>	<b>100.0 %</b>	<b>World</b>	<b>88.1</b>	<b>100.0 %</b>

Source: Data from GTA, elaborated by OeMv.

Since 2000, the five major European exporters have increased their exports by 1,293 million litres (+28%), up to 59 mhl. In the same period, the group of five major new producers grew at a faster pace than the former, both in absolute and relative terms, to reach a 27.7% market share. Does this mean Europe has lost competitiveness in the wine market?

**Table 1.6. - Evolution of major wine exporters in volume**

COUNTRY	2000	2010	Change 2000 to 2010			Mill. Ltrs.
			Change	%		
Italy	1,764	2,158	394	22%	28%	1,293
Spain	889	1,745	856	96%		
France	1,516	1,352	-165	-11%		
Germany	248	394	146	59%		
Portugal	189	250	61	32%		
Australia	311	799	488	157%	132%	1,480
Chile	274	733	459	168%		
USA	282	397	115	41%		
South África	158	393	235	149%		
Argentina	97	279	182	188%		
Rest	338	877	538	159%		538
<b>World</b>	<b>6,066</b>	<b>9,377</b>	<b>3,311</b>	<b>55%</b>	<b>55%</b>	<b>3,311</b>

Source: Data from GTA, elaborated by OeMv.



It definitely means that there are new players in the game that want to stay. In any case, it may be misleading to extract very firm consequences out of rapidly changing figures. As an example, while preparing the most recent CMO for wine, the argument was raised that Europe was losing competitiveness as shown by trade figures between the EU and Third Countries. However, these same figures show better results in more recent years (2005 to 2010), with EU exports growing at an average annual rate of 7.7% in value terms and 8.4% in volume, as compare to imports decreasing at 0.8% in Euros and growing at a smaller 2.6% in litres. According to these numbers, therefore, the European Union would be reacting strongly in the last five years, while Third countries would be competing more on a price basis.

**Table 1.7. - EU wine trade with Third Countries**

<b>mill €</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>CAGR 05/10</b>
Export	4,631.6	5,448.8	5,950.4	6,165.7	5,354.6	6,710.4	7.7%
Import	2,443.2	2,435.1	2,698.5	2,492.2	2,349.0	2,346.5	-0.8%
Balance	2,188.4	3,013.7	3,252.0	3,673.5	3,005.6	4,364.0	14.8%
<b>mill ltrs</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	
Export	1,360.5	1,685.5	1,790.8	1,731.8	1,610.7	2,033.2	8.4%
Import	1,184.8	1,153.4	1,290.4	1,253.7	1,304.6	1,347.1	2.6%
Balance	175.7	532.1	500.4	478.0	306.1	686.1	31.3%
<b>€/l.</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	
Export	3.40	3.23	3.32	3.56	3.32	3.30	-0.6%
Import	2.06	2.11	2.09	1.99	1.80	1.74	-3.3%

Source: EU statistics elaborated by OeMv.

To better understand the role of the EU in world wine trade, it must be said that the EU accounts for 72% of total wine exports in Euros and 69% in volume terms, while the EU represents 'only' 51% and 63% of total world imports of wine in both value and volume terms. Such a prominent role in world trade derives from the importance of different markets within the Union, whose evolution strongly affects the EU trade balance with Third Countries. Among exporters, Italy, Spain, France and Germany as well as Portugal are the major players. However, among importers, the evolutions of United Kingdom and Germany and to a lesser extent Belgium and the Netherlands, deeply influence the general figures of EU imports.

**Table 1.8. - EU share in world wine trade**

<b>2010</b>	<b><u>EU Exports</u></b>			
	<b><u>In volume terms</u></b>		<b><u>In value terms</u></b>	
	<b><u>million ltrs</u></b>	<b><u>%</u></b>	<b><u>€</u></b>	<b><u>%</u></b>
<b>World</b>	<b>9,377</b>	<b>100.0%</b>	<b>20,909</b>	<b>100.0%</b>
<b>EU</b>	<b>6,456</b>	<b>68.9%</b>	<b>15,026</b>	<b>71.9%</b>
<b>Third</b>	<b>2,921</b>	<b>31.1%</b>	<b>5,883</b>	<b>28.1%</b>
<b>World</b>	<b><u>EU Imports</u></b>			
	<b><u>In volume terms</u></b>		<b><u>In value terms</u></b>	
	<b><u>million ltrs</u></b>	<b><u>%</u></b>	<b><u>€</u></b>	<b><u>%</u></b>
<b>World</b>	<b>8,807</b>	<b>100.0%</b>	<b>20,442</b>	<b>100.0%</b>
<b>EU</b>	<b>5,515</b>	<b>62.6%</b>	<b>10,390</b>	<b>50.8%</b>
<b>Third</b>	<b>3,291</b>	<b>37.4%</b>	<b>10,049</b>	<b>49.2%</b>

Source: Data from GTA, elaborated by OeMv.

Furthermore, a great part of total world trade takes place within the EU. According to Eurostat, 4,421.7 million litres and 8,038 million Euros were exported by European producers to European markets. Although coming from different sources, these figures would roughly indicate that more than 47% of total volume and 38% of total value takes place within the EU. The difference between volume and value shows that an important part of the internal EU wine trade is made of bulk wine traded among producing countries. Actually, France remains in 2010 the major client of Spanish exports with 3.5 million hectolitres sold, which represent almost 20% of total Spanish exports. Portugal (third) and Italy (seventh) are also relevant clients of Spanish exports, accounting for 1.8 and 0.5 million hectolitres respectively.

A final point regarding world wine trade needs to be raised as to the recent importance of **bulk exports** and what they might represent to more highly differentiated markets. Actually, three different markets for bulk wine may be differentiated, although they cannot be easily measured. First, there is a traditional bulk wine trade among producers, either for domestic consumption or for re-exporting. Second, official statistics of bulk wine also include sales of bag-in-box which are achieving great importance in certain markets like Scandinavia. Finally, there is a third and growing market for bulk wine from producers to markets of consumption for local bottling and distribution, mainly generated as a reaction to increasingly adverse economic conditions and sometimes made within large multinationals with different facilities in different parts of the world.

These new developments in bulk wine show that, as mentioned before, it seems that different markets and different market segments are evolving differently in recent years. On the one hand, as wine becomes a more popular beverage in many countries of the world, large amounts of wine are sold in the off-trade channel of major importers, by a more concentrated retail sector, at quite reduced prices. On the supply side, the wine to this part of the market is provided by large cooperatives and firms in Europe, but has been facing increasing competition from large and efficient firms supplying low-cost wine from new world countries, with quite a simple image basically based on grape variety, brand and country of origin. This is the part of the sector showing greater pressure on margins, which is now seeking new ways to improve its profitability by using bulk transport and local bottling for domestic consumption. On the other hand, *wine* (including sparkling and fortified wine) is also a more differentiated product with higher average prices to be sold both in the on-trade channel and specialized retail chains, mainly marketed based on the area of origin.

Probably, this is the major conclusion that may arise from a necessarily limited analysis of wine markets: there are different types of wine which may be directed at different market segments, which are evolving differently. But then, should we care about all types of wines? Are all of them similarly important for the sector, the economy and the populations involved? A successful commercial policy as well as an efficient public regulation would need to assess which type of wine, produced under which circumstances, with what type of image, in which kind of container or bottle, should be directed where and to what type of consumer, at which price segment and through what kind of distribution channel. Putting together all these elements – and more – in a competitive way would be the key to success. But accepting these differences is essential to maintain the wine sector, particularly in Europe, where social, cultural and environmental factors complement its economic importance.

Different wines for different markets are also produced and distributed by different types of companies. As mentioned in a recent analysis by Rabobank<sup>7</sup>, “top-end players seem to have the best-suited asset and cost structure to their product, but demand at the high end of the market is limited. Brand builders with a focused business model are profitable, but many companies selling at those price points do not meet the requirements of a brand builder”. Finally, “volume players need a lean structure and scale, but the latter seems to be the most frequently missed element”. Again, different wine segments are requiring different types of producers, companies, strategies and probably regulation frameworks, to finally be efficient and competitive at each market and price point.

### 1.3. Drivers of change and actors in the wine business

The changes in flows described above have been the result of a complex evolution in the nature and structure of the world wine market. Four main drivers have determined the transformation in the geographic division of production and consumption and in the competitive position of each country: evolution of demand, growth of the power of distribution, emergence of brand importance and growth of competition (Rabobank, 2003; Pomarici, 2005).

The change in demand has determined increasing requirements in terms of value (or rather quality/cost relationship), diversification of the sensory experience and, a very important element, individualization and recognition of the products. These new demands from consumers have been interconnected through a system of supermarket chains, which in the wine trade, as in general for all food farming products, has broadened its role; in most markets the quota of wine sales from large distributors is higher than 70% (Boccia et al. 2011). Big retailers are in a position to play a dominant role in the industry relationship; a rather limited number of buyers, controlling very elevated quantities of commercialised product, being able to impose the standards of supply on producers.

The increased number of participating countries in the international wine trade has determined a huge growth of competition, characterized by profound innovations of the marketing styles established by new entrepreneurial subjects who, in the last thirty years, have entered the wine market. Such evolution interacting with the increased role of the large retailers and the evolution of demand have determined the condition for the appearance of the brand as an important element in the marketing strategy of a company, redefining the opportunity concerning economy of scale in the wine industry.

All these drivers have characterized a process of globalization of the wine sector which has had a paradigmatic value (Anderson, 2004; Coelho and Rastoin, 2005). Such globalization process has determined an impulse to the consolidation of the wine industry, but the demand segmentation and the product differentiation have preserved room for a multiplicity of types of actors, in terms of size and specific role, at the different levels of the supply chain.

Focusing the system of companies which deliver wine to the distribution system, it is possible to observe, over the past twenty years, an evolution which has among its macroscopic aspects of the consolidation of large dimension operators specializing in wine, the massive penetration of multinational beverage in the wine market and, simultaneously, the development of a galaxy of small businesses focused on specific niches of the market for high-end wines (Green et al., 2006; Mariani, Pomarici, 2008). Anyway, the consolidation process in the wine industry has been less severe than in other markets. In 2005, the 40

<sup>7</sup> Rabobank (2008), “Margins and strategies in the wine industry”, presented at the Rabobank-OeMv conference held in Madrid in November 2008.

largest wine companies represented 30% of world wine sales evaluated at the winery gate (Table A) and the 3 largest 7%; In other markets, the market share of the top 3 was much higher: spirits 25%; beer 28%; soft drinks 80% (Coelho, Rastoign, 2006).

Focusing the distribution system, increases in exchange at national and international levels and the increased power of large retailers have imposed the research of new organizational structures in the connection between production and retailing and horeca which could guarantee sufficient levels of effectiveness and efficacy in logistics, customer service and structuring of the supply range. Thus everything has prompted the formation of distributing companies with the capacity of performing logistic and commercial activities between production and retail at low cost, handling the commercialization of production for numerous companies. Also the distributing companies which have developed do not yet form a homogenous group, and are diversified by size and by the nature of association with the producing companies (independent or controlled by production groups).

**Table 1. 9 - The leading wine companies (2005)**

Rank	Company name	Country of origin	Creation or fusion	Governance	Turnover (M\$ US)		world market share	Countries where are located other production unit
					Total	Wine		
1	Constellation Brands	USA	1954	LS	4,090	2,850	4.7%	Aus, NZ, It, Chi
2	E & J Gallo USA	USA	1933	PR	3,000	2,000	3.3%	
3	LVMH	FRA	1987	LS	15,681	1,560	2.6%	USA, Esp, NZ, Aus, Arg, Brazil
4	Groupe Castel	FRA	1949	PR	1,932	1,178	2%	Mar, Tun, Chn
5	Allied Domecq	GBR	1994	LS	5,823	771	1.3%	USA, Arg, NZ, Esp,
6	Oetker Gruppe	GER	1987	LS	6,334	743	1.2%	Hg, Fr, AUt, Pol,Tch,Slo, Ro
7	Foster's Group	AUS	1888	LS	2,697	743	1.2%	USA, Chi, NZ, It
8	Southcorp	AUS	1888	LS	799	740	1.2%	Usa, FR
9	Pernod Ricard	FRA	1975	LS	4,872	650	1.1%	Aus, Arg, NZ, AFS, Chn, Esp
10	Grands Chais de France	FRA	1979	PR	553	553	0.9%	
11	Freixenet	ESP	1861	PR	523	523	0.9%	Fr, Aus, Ur, USA, Mex, Arg
12	The Wine Group	USA	1981	PR	511	511	0.8%	It
13	Robert Mondavi	USA	1966	PR	468	468	0.8%	It, Chi
14	Günter Reh AG	GER	1988	LS	460	460	0.8%	Fr, Pol, Hg, Aut, Tch, Slo, Ro, E
15	Val d'Orbieu	FRA	1967	CO	445	445	0.7%	
16	Kendall Jackson	USA	1982	PR	425	425	0.7%	Arg, Chi, Fr, It, Aus
17	Rotkäppchen	GER	1856	PR	423	424	0.7%	
18	Brown-Forman Corp.	USA	1870	LS	2,213	416	0.7%	It
19	Trinchero Family Estates	USA	1947	PR	412	412	0.7%	Aus
20	Vincor International Inc.	CAN	1992	LS	364	364	0.6%	USA, Aus, NZ, AFS
21	Viña Concha y Toro	CHI	1883	LS	338	338	0.6%	Arg
22	Gruppo Italiano Vini	ITA	1986	CO/PR	314	314	0.5%	
23	Vranken-Pommery Monop	FRA	1975	LS	313	313	0.5%	Por, Esp
24	Diageo	GBR	1997	LS	16,161	300	0.5%	USA, Fr
25	Boisset *	FRA	1961	LS	298	298	0.5%	Can, Ur
26	Lanson International *	FRA	1989	PR	298	298	0.5%	
27	Distell Group Ltd	AFS	2000	LS	921	293	0.5%	
28	Cavit	ITA	1950	CO	281	281	0.5%	
29	Banfi Products Corp. *	USA	1919	PR	262	262	0.4%	It
30	Laurent-Perrier	FRA	1979	LS	261	261	0.4%	
31	Codorniu	ESP	1551	PR	256	252	0.4%	USA, Arg
32	Bronco Wine Co. *	USA	1973	PR	250	250	0.4%	
33	Arco Bodegas Unidas	ESP	1877	PR	248	248	0.4%	Arg
34	Marie Brizard & Roger Int	FRA	1755	LS	470	244	0.4%	Esp
35	Mc Guigan Simeon Wines	AUS	1992	LS	232	232	0.4%	
36	Baron Philippe de Rothsc	FRA	1933	PR	230	230	0.4%	It, Por, Chi, Arg, USA, AFS
37	Champagne N. Feuillate ( * FRA		1971	CO	220	220	0.4%	
38	Caviro	ITA	1966	CO	286	210	0.3%	
39	The Terlato Wine Group	USA	1947	PR	200	200	0.3%	Aus, Fr
40	Miguel Torres SA *	ESP	1984	PR	190	190	0.3%	Chi, USA
<b>TOTAL</b>					<b>74,053</b>	<b>21,468</b>	<b>35.7%</b>	

\* Data for 2003 / Abbreviations Ownership Structure: LS, Listed on the stock market; PR, Private, CO, cooperative

Source: adapted from Rastoign and Coelho, 2005.

## 1.4. EU wine industry in the international competition

The combined action of demand, distribution and new players on the market has induced, in the last thirty years, a change in the wine market which, seen in its complexity, has been transformed from a business of a strongly agricultural nature guided by supply, to a sector of the foodstuff industry characterized by high levels of competition and professionalism, where the supply chain is largely controlled by large retailers and agents of the intermediate distribution. Wine producers have therefore to negotiate from an uncomfortable position access to the market, and the capacity to do this is a crucial element in the competition.

Inside this arena, the EU wine supply is represented by a extremely wide range of companies – private or cooperatives - which in structural and strategic terms does not appear very different from that of the new world.

Among the 40 largest wine companies in the world, 23 belong to the EU and of these 5 are cooperatives. The headquarters of the biggest companies specializing in wine are in some new wine producing countries, but the largest multinationals interested in wine have their center of operations in the old world. Such companies are mostly guided by a managerial staff and in many cases quoted on the stock exchange; they are able to exploit economies of scale and scope, strongly oriented toward the international market, in some cases control directly the distribution in their key markets, have resources and competencies to sustain their brands and to be effectively market oriented, playing on the market with a very differentiated range of product and a rich brand portfolio. Anyway, considering many among the leading wine companies, the concept of “nationality” of the companies itself turns out to be ever more faded due to the presence of beverage multinationals, even in the case of other transnational specialized companies, fruit of mergers, acquisitions and joint ventures, which have frequently established a number of entities of an intercontinental nature (Coelho, 2011).

In addition, the EU, as with the competing countries, is present in the wine market with a very important number of small quality-oriented wineries. Such wineries are in some cases oriented toward domestic markets, usually exploiting the opportunities of wine tourism, or challenge the international market, responding to the desire to have new experiences of some consumer segments.

Finally, the EU competes with many medium wineries, mainly under family control if they are non cooperatives. This group of wineries is probably peculiar to the European Union, where family business and medium-size cooperatives have shown a higher viability with respect to new world countries. It is characterized by a differentiated range of product, similar to that of larger companies, and up to now have compensate for the disadvantage of moderate economy of scale with a well-rooted connection to the regional markets and a long experience of the national and international market.

Unfortunately, adequate information is not available on the number and weight of aggregate supply of medium and small unspecialized wineries and of small quality oriented wineries in each Member State. Anyway, to give a broad picture of the situation, it is possible to mention that in Italy (Malorgio *et al.*, 2011; Mediobanca, 2011: i) wine companies with a turnover higher than 200 millions € still (two among them are currently financially linked) represent about 10% of the value of the Italian supply; ii) about 100

wine companies have a turnover between 200 and 25 millions € and represent 45% of the value of the Italian supply; the remaining 45% of the value of the Italian wine is realized by about 8.000 companies selling wine into the distribution system, of which about 3.000 can be considered small quality-oriented wineries (to be confirmed).

In Spain, according to Alimarket (Informe Annual, 2011), which collects information on 404 companies with sales of more than 1,2 million €, the total sales reached 5,619 million € in 2011. There are only five companies with a turnover of over 200 million €, which amount to a total of 1,667 million €, which represents 30%; 33 companies have a turnover between 25 and 200 million €, which amount to 1,944 million € (35% of the total). Those that have a turnover between 1.2 and 25 million €, account for 2,008 million € (35% of the total) and there are 366 companies of this type. It is estimated that there are around 4,000 wineries in Spain.

Probably the current structure of the European wine industry will be exposed to changes driven by the opportunities linked to economies of scale and organizational economies, whether in the production or in the distribution of wine. Such opportunities will probably determine an increased competitive advantage for the big companies as regards the small and medium ones, which are stressed in the most basic segments of the market (basic and popular premium), where the low margins make cost differentials a real discriminating element. Reasonable expectations suggest that the EU wine sector will see a sensitive process of concentration between the companies oriented towards the lower segments of the market, mainly involving the cooperatives. Such consolidation could also take place with the setting up of a network of firms and not only via mergers and acquisition (M&A).

Big companies oriented to the basic and popular premium segments can certainly extend their offer even to higher segments; nonetheless, in these segments the interest of the public for the diversification of the sensory experience and for brands with a net characterization towards excellence, a specific individuality linked also to the personality of the entrepreneur and, in some cases, the territorial specialization, should allow significant space, at least in relation to their dimension, for the medium-small companies.

## **1.5. The organization of the production chain**

The competitive pressure in the wine market has determined not only a differentiation of the companies operating in the wine business in terms of turnover and supply strategy, but also in terms of variety of forms of organization of production chains. As a matter of fact, the structure of the wine production process and the supply of equipment for viticulture and wine making allows for the participation in the production chain of more independent agents. Moreover, the literature pointed out that production organization depends both on the characteristics of the product and on the characteristics of the market where the product has to be sold. The consequence is that the thousands of firms operating in the vine industry display a wide variety of forms of production organization. In the wine production process, it is possible to recognize four main phases:

Grape production:

- wine making,
- ripening (elevage),
- bottling or packing.



and it is possible to observe full integrated production chains, when the same business unit realize all production phases, from grape growing to wine bottling, and not integrated production chains, where two or more firms (private or cooperative) take part in the production chain, which can be also placed in different regions or states. Anyway, looking at the entrepreneurial structure of the industry, it is possible to observe that some companies realize a fully integrated production process to deliver a specific product to the market and, at the same time, realize only a part of others production processes.

The critical aspect of such complex organization of the wine industry is the presence of many inter-industry markets. The most important are:

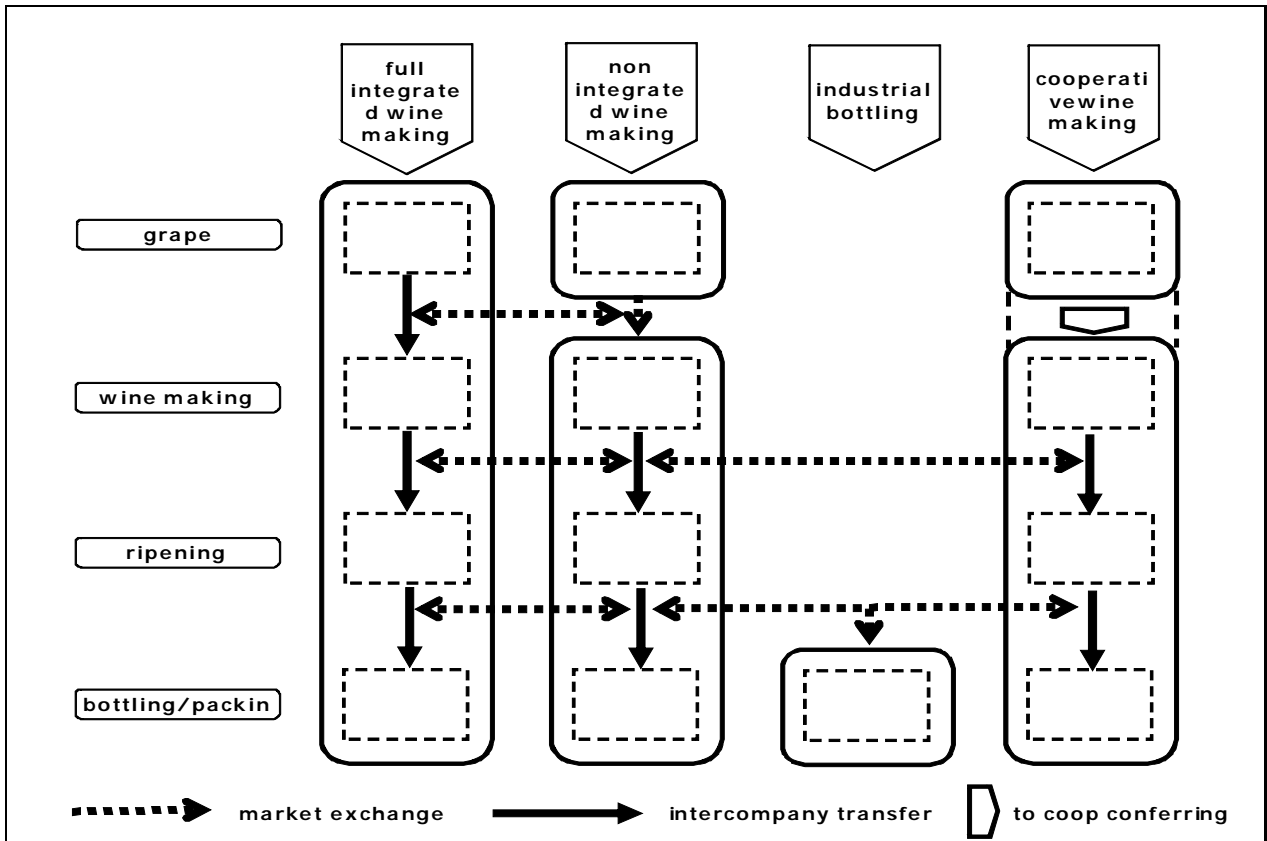
- the grape market,
- the young wine market,
- the wine ready for bottling.

The specific size of such markets is variable year by year and country by country. An important point is that the supply surplus on the final market may determine lagged surpluses in the upward markets, but the pressure on prices can be different at each level.

Regular and systematic data concerning the inter-industry markets in the wine sector are not available, but to have a rough estimation of their size it is possible to use some data available for the Italian sector (Malorgio *et al.*, 2011). With reference to 2008, the grapes exchanged in the market was 35% of the total production (about 2,5 millions tons on 7,2 millions tons harvested); considering only the wine destined to be PDO/PGI wine, the product exchanged in the inter-industry market is 26% of the total supply (7,8 millions hl on 30).

As a matter of fact, among the participants to such inter-industry markets there are some actors which regularly sell or buy in such markets, with a business based on such markets, and others that use the inter-industry markets on an ad hoc basis, to sell grape or unfinished wine when the availability exceeds their main marketing plan, or to buy when they suffer a shortage of intermediate products with respect to their production plans. The instability of most inter-industrial markets is probably the reason why the contracts to regulate the relations between participants are not common in the EU.

**Figure 1.4. - Forms of production organization and inter-industry markets in the wine industry**







## 2. THE MECHANISMS OF PLANTING RIGHTS IN EUROPEAN COUNTRIES

### KEY FINDINGS

- The planting rights regime has been introduced at an EU level with Council Regulation n. 1162/1976, with the purpose of maintaining a curb on production potential and of preventing the formation of structural surplus, and it has never been abolished.
- Regulation n. 1493/1999 introduced in the planting rights system both quotas on new planting rights for each MS and the creation of reserves of rights for the management of the scheme.
- Anyway, the design of planting rights mechanisms vary according to the importance and dynamics of viticulture in the areas concerned in each MS.
- National and regional reserves of planting rights have mainly contributed to support young farmers starting grape growing activities.
- In some countries, the transfer of replanting rights requires a previous authorization from regional or national authorities (e.g. Spain, Italy). In other countries, such authorization is not required (e.g. Portugal). The volume (ha) of replanting rights allowed for transfers every year is restricted in some countries, regions, and PDO/PGI.
- The fluctuation of prices for high-value planting rights (e.g. Rioja) may impact considerably the value of farms. Reserves of planting rights may influence the price of planting rights in the open market (e.g. France).
- Planting rights were not a barrier to expand the size of vineyards or a constraint to the entry of new and young entrepreneurs in the industry.
- The open market for planting rights lacks transparency. The identity of buyers and sellers and the volume of planting rights available for sale is not generally clearly known. In some cases, speculation around the prices of planting rights hampered market transactions. Intermediaries may play a role.

### 2.1. The planting rights regime

Even if several European countries adopted in different periods measures of wine market regulation, planting rights at EU level have been established as a temporary measure of the CMO just with the Council Regulation n. 1162 of 17 May 1976, with the purpose of maintaining a curb on production potential and of preventing the formation of structural surplus; at the same time it enabled MS to exercise some degree of quality control over their vineyards, by orienting planting to production at the levels of quality demanded by consumers. The introduced mechanism permitted both replanting under certain circumstances and new planting, but no blanket ban on planting has been established. The reason of such an intervention is to be found in an increasing imbalance in the wine market of that time, together with the tendency to overproduce. Nonetheless, an exemption from the prohibition has been provided for, dealing with the production of quality wines, under certain conditions. After some years the CMO structure has been revised and in 1987 two new regulations intervened, rearranging a very fragmented discipline.

The point of departure has been the persistence of a serious structural surplus in the wine market and the solution proposed has been to control the balance between supply and demand on the wine market, taking into account both the production potential and the evaluation of the volume of grape must and wine available each year. As for the reduction of production potential, the prohibition of new planting rights has been renewed once again and, since then, it has been in place for nearly 30 years. In fact, the planting rights regime has been modified several times, but never abolished. Council Regulation (EC) No 1493/1999 of 17 May 1999 on the CMO for wine introduced a number of changes, partly in response to changes in the sector's economic position. The two major ones were quotas for new planting rights for each MS and the creation of reserves of rights, together with an obligation to grub up unauthorized plantings made from 1 September 1998, i.e. vines planted without a replanting or new planting right.

In particular, Article 5(1) obliged MS to establish national and/or regional reserves for planting rights, leaving them free to choose the *effective system* for managing planting rights (see Article 5(8)) as an alternative to the reserve system (this option requires a derogation). After the latest reform (2008), the new CMO for wine kept the national and regional reserves systems "in order to improve the management of wine-growing potential and to promote the efficient use of planting rights and thus to further mitigate the effect of transitional restriction on plantings"<sup>8</sup>.

Regulation n. 1493/1999 also distinguishes two types of new planting rights: new planting rights of administrative nature (a) and new planting granted to meet the demand for quality wines produced in specified regions (quality wines produced in specified regions) and table wines with geographical indications (b)<sup>9</sup>.

(a) New planting rights of administrative nature (Article 3(1) of Regulation (EC) n. 1493/1999) may have different origins and purposes: compulsory purchase of land in the public interest, land consolidation, experiments, creation of graft nurseries, and family consumption. For the period 2000-2006, the area of the planting rights concerned by this measure was approximately 6056,25 hectares<sup>10</sup>. During this period, the main destination of administrative planting rights was by far family consumption in Italy (4292,21 hectares).

The last reform of the CMO (2008) for wine kept the same planting exceptions. Exceptionally, the new CMO for wine grants permission for "plantings of areas intended for graft nurseries, land consolidation and compulsory purchasing as well as wine-growing experiments"<sup>11</sup> as these new plantings do not interfere with wine market balance.

(b) New planting rights to meet demand for quality wines produced in specified regions and table wines with geographical indication.

Regulation (EC) N° 1493/1999 established a "quota" for newly created planting rights and it also allowed MS to grant new planting rights, no later than 31 July 2003, for the production of quality wines or table wines (geographical indications) whenever there was a demand for these categories of wines<sup>12</sup>. According to the report from the Commission 34783 ha of new planting rights were created to meet the demand<sup>13</sup> and the "quota" was set up at 51000 ha<sup>14</sup>. Most of the new planting rights created to meet the demand were

<sup>8</sup> See Council Regulation (EC) N° 479/2008 of 29 April 2008, L 148/7.

<sup>9</sup> See COM (2007) 370 final, p. 4-6.

<sup>10</sup> Estimation based on Communications of the MSs to the European Commission (see COM (2007) 370 final, p. 4).

<sup>11</sup> See Council Regulation (EC) N° 479/2008 of 29 April 2008, L 148/7.

<sup>12</sup> See Article 3(2) to (5) and Article 6 of the Regulation (EC) N° 1493/1999.

<sup>13</sup> See Article 3(2) of the Regulation (EC) N° 1493/1999.

<sup>14</sup> See Article 6 (1) of the Regulation (EC) N° 1493/1999.

used to produce quality wines (29714 ha for quality wines and 5069 ha for table wines with geographic indication)<sup>15</sup>.

The last CMO for wine (2008)<sup>16</sup> forbids all new plantings until the 31 December 2015. If necessary, MS may extend this prohibition until 31 December 2018. The Regulation justifies this prohibition with the need to achieve a balance in the European wine market. Furthermore, some measures related to the management of the production potential (e.g. the grubbing up scheme) require a considerable amount of time before starting to produce effects.

According to the Act of Accession to the European Union, newly created planting rights were allocated to New MS (Czech Republic, Malta, etc).

In fact, after the enlargement, the CMO for wine specifies the mechanisms associated with vine planting rights in the EU-27. However, while sharing the same common framework, there are significant differences in the way MS or regions adopted the framework. As an example, in Hungary the surfaces of vines grubbed-up authorized between 1/5/1996 and 30/4/2004 were recognized as planting rights, and could be used by producers for plantation until 31/7/2010: 12,500 ha planting rights started up at the moment of EU adhesion. Vines could only be planted on areas ranked I<sup>st</sup> or II<sup>nd</sup> class, favorable pedo-climatic characteristics for viticulture.

## 2.2. Strategic issues in the market for planting rights in some Member States

In the described background, particular attention is to be paid to the situation of planting rights in Spain, France, Italy and Hungary, representing different ways of managing the existent regime under the CMO for wine.

**Spain** - The first attempt to regulate vineyard (restrict) plantings in Spain was held on 1932, through the publication of a global framework for the wine sector (*Estatuto del Vino*). This legislation considered that the wine market might be impacted by fluctuations in supply (crop sizes) or in the demand. Therefore, for the first time, Spanish authorities considered the rationalization of vine plantings and established by that time vine planting licenses<sup>17</sup>. By 1954, a new decree restricted vine plantings in order to prevent imbalances between supply and demand (Elgue, s.d.). Therefore, new vines and vine (re)plantings were forbidden for the 1954/1955 campaign<sup>18</sup>.

Later on in 1970<sup>19</sup>, a new vine and wine general framework was adopted. This legislation established the right to replant vines from the same parcel, after the grubbing up of the vines within seven years before replanting the vines. After the accession to the EEC in 1986, Spain progressively adopted the European legislation on this matter.

**France** - France established a planting rights system in 1931. More recently, with the 1999 and 2008 reforms, the system of planting rights was consolidated.

Grape growers have several options if they intend to plant a vine:

- a) The first option consists on grubbing up of a surface of vines and later to replant an equivalent area. This process generates automatically a right to replant but only if

<sup>15</sup> See COM (2007) 370 final, p. 4-5.

<sup>16</sup> See Council Regulation (EC) N° 479/2008 of 29 April 2008.

<sup>17</sup> Decree of 8 September 1932, *Estatuto del Vino*. Later on this Decree became Law on 26 May 1933. The Circular of 14 October 1932, considers new vine plantings (article n° 68).

<sup>18</sup> Decreto Ley 10 August 1954.

<sup>19</sup> Law 25/1970, 2 December. *Estatuto de la Vina, del Vino y de los Alcoholes*.

the vines will be planted to produce wines in the same category (PDO...). Otherwise, grape growers should request a right to produce. For example, a vine producer wishing to move his vines from table wines to PDO wines are required to obtain permission to produce PDO wines.

- b) The second option consists of purchasing a parcel of vines in the market;
- c) The third option may be the purchase of a (re)planting right in the market or from a reserve to plant an available parcel. In some cases, planting rights from the reserve may be granted for free.

Intermediaries (brokers, etc) may play a role in matching the interests of buyers and sellers in the free market.

After the introduction of the French national reserve, prices in the free market are slightly below the price for planting rights in the reserve. Therefore, to some extent, the national reserve provides a sign for setting up the prices for the transactions in the market.

**Italy** - Before the setting up of the European planting rights system, the sector was characterised by a substantial liberalisation. After the Second World War, the Italian wine industry was strongly underdeveloped because of the lack of modern machinery and production technologies and of plant health checks. The quality of wine has been often damaged by adverse weather conditions and high production costs; so, the possibility of free planting of vineyards has been seen as an opportunity of delocalising the production from hills to plains, where it was easier to cultivate them. Throughout the 1950s, farmers and cooperatives were therefore involved in the reconstruction and no ban of planting or replanting rights was established. This period has been also characterised by an attempt to reorganize and regulate the sector, given the lack of laws regarding both quality and production control of grapes. The same process has distinguished the following twenty years. Anyway, before the introduction, with the CMO reform, of planting rights, neither the application of EEC regulations, nor the enactment of national laws were able to totally resolve the longstanding problem of volatility of prices. This issue has been reported since the early Fifties, due to an imbalance between supply and demand of wine; it was since then that more than one operator advocated the introduction of restrictions for new plantings as a solution to better balance the market equilibrium not only at national, but also at European level. Nevertheless this proposal has been controversial, heavily debated and never transposed into law.

**Hungary** - Planting rights were introduced in Hungary for the first time in 14 May 2004, following the implementation of the CMO for wine in this country. Therefore, in accordance with Regulation (EC) 1493/1999, Hungary implemented a new system to manage planting rights. The management of the production potential moved from a quasi-liberal planting system to a highly regulated scheme, where during a relatively short period (during the last 7 years) some significant changes have occurred with the implementation of the national reserve of planting rights.

**Table 2.1. - The evolution of the Hungarian vineyard planting regime (classified in three periods)**

	Main issues
Before 1/5/2004	<ul style="list-style-type: none"> <li>- planting rights did not exist</li> <li>- vineyard plantation allowed only with authorization (delivered by wine communities)</li> <li>- vine can be planted only on classified (Ist or IIInd class) area regarding favorable pedo-climatic characteristics for viticulture</li> </ul>
From 1/5/2004 to 1/8/2009	<ul style="list-style-type: none"> <li>- grubbing-up realized by authorization between 1/5/1996 and 30/4/2004 are recognized as planting rights, and can be used by producers for plantation until 31/7/2010;</li> <li>- 12 500 ha planting rights started up at the moment of EU adhesion;</li> <li>- no national reserve nor regional reserve of planting rights;</li> <li>- planting rights can be acquired from the market;</li> <li>- Paying Agency (ARDA<sup>20</sup>) delivers planting authorization</li> <li>- vine can be planted only on classified (I<sup>st</sup> or II<sup>nd</sup> class) area regarding favorable pedo-climatic characteristics for viticulture</li> <li>- wine communities in charge of the database of planting rights</li> </ul>
Since 1/8/2009	<ul style="list-style-type: none"> <li>- ARDA registers planting rights exchange contracts and treats database of planting rights</li> <li>- ARDA delivers planting authorization</li> <li>- vine can be planted only on classified (I<sup>st</sup> or II<sup>nd</sup> class) area regarding favorable pedo-climatic characteristics for viticulture</li> <li>- 1/8/2010: ARDA established national reserve from planting rights formed at the moment of EU accession and not used by producers until 31/7/2010</li> <li>- ARDA publishes planting rights sale from national reserve twice a year for an indicative announced price</li> </ul>

<sup>20</sup> ARDA – Agricultural and Rural Development Agency (Mezőgazdasági és Vidékfejlesztési Hivatal – MVH).

## 2.3. Changes in production potential

### 2.3.1. The market for replanting rights

According to data published by the Commission, in 2005/2006 the amount of planting rights held by producers in the EU(15) was approximately 231 809 ha<sup>21</sup>. Spain (88412 ha), Italy (52465 ha), and France (43702 ha) accounted for the majority of the replanting rights available in that year.

**Spain** - In Spain most of the transfers of replanting rights are located inside the same region (intra-regions). The number of transfers between regions is quite limited. Spanish legislation forbids the transfer of planting rights between regions when the volume (hectares) of net transfers will account for more than 0.4% of the regional vine surface for wine purposes in the same campaign. According to Spanish legislation, the transfer of a higher surface rate could produce territorial imbalance<sup>22</sup>.

The transfer of planting rights inside the same region (*Comunidade Autonoma*) must be previously authorized by the regional government. The authorization for transferring planting rights located in different regions must be authorized by the national Ministry of Agriculture. The same applies to the case of a transfer of planting rights between a parcel and a regional reserve located in different regions.

In the case of the transfer of planting rights from a PDO involving several regions (e.g. DOCa Rioja), the following rules apply:

- a) When the parcels of the buyer and the seller are located in the region and in the same PDO, the authorization for the transfer should be granted by the regional government;
- b) When the parcels of the seller and of the buyer are located in different regions, different to those of the PDO region, the authorization should be granted by the national Ministry of Agriculture<sup>23</sup>;
- c) When the transfer includes the addition/exit of planting rights to/from a PDO involving different regions, the authorization should be granted by the Ministry of Agriculture.

The authorization for the transfer of planting rights will be granted only when all the vineyard of the buyer and the seller comply with the legislation (e.g. no unlawful plantings). Also, the buyer should not have transferred replanting rights or benefited from financial aid to grub up vines, neither in the same campaign nor in the five previous campaigns. The transfer of replanting rights must comply with the regulations of the PDO concerned or should have the authorization to market the PGI wines concerned. In any case, the new vine surfaces made with the transfer of replanting rights should not have a considerable impact on production potential. In the case that yields of the plantings in the new parcel will be superior to 5 percent of the previous parcel, an adjustment will be made. The adjustment of yields will take into account the average yields published by the national Ministry of Agriculture.

The transfer requires previously the release of a certificate by the regional government justifying the existence of the planting rights. The certificate is only valid for the campaign corresponding to the request.

<sup>21</sup> See COM (2007) 370 final, p. 6.

<sup>22</sup> Real Decreto 1244/2008, 18 July 2008.

<sup>23</sup> Ministry of Medio Ambiente, y Medio Rural y Marino (MARM).



New plantings rights require a previous authorization from the regional governments of the territories concerned by the new plantings. Whenever the Ministry of Agriculture is concerned by the transfer of the planting rights an authorization is required. Regional governments may set up a minimal surface to plant with the replanting rights. Also, regional governments may limit the replanting to some varieties. In 2009, the interprofessional body (*Consejo Regulador*) of DOCa Rioja requested that the three main regional authorities (La Rioja, Basque Country, Navarra) increase the planting potential by 2000 to 2500 ha in order to adapt supply to the increasing demand for white wines. The authorization was granted in order to plant international and indigenous grape varieties. Therefore, the decision to increase the production potential in the PDO belongs to the regional political authorities, not to the interprofessional body.

**France** - With the exception of wines without geographic indication, all the other categories of wines (PDO, PGI) require permission to plant. Therefore, the production potential is controlled for PDO and PGI wines. According to the perspectives for the wine market, every PDO and PGI wines board<sup>24</sup> manage the production potential through the approval of annual quotas to replant. A balance is negotiated at the national level aiming at the decree of the Ministry of Agriculture, published and becoming the reference. The annual quota is shared among all the demands for additional plantings, according to three types of criteria: eligibility, priority, maximum surface. Furthermore, a maximum surface is established per person and per year. The current limitation is 3 ha for PGI wines by person and can be extended to 5 ha in the case of a collective programme. PDO wines are limited to 1 ha by person but exceptionally the maximum surface may reach 5 ha. In France, the National Institute of Designations of Origin (INAO) is in charge of the administrative procedures related to PDO wines. FranceAgriMer is in charge of the procedures related to the other categories of wine (PGI, wines without geographic origin). A custom administration is in charge of the vine register.

**Italy** - The transfer of replanting rights may be partially or fully transferred to other individuals or farms for the production of PDO or PGI wines. The transfer of replanting rights requires a previous authorization from the regional or State authorities. The entity (person or company) selling the replanting rights and therefore reducing the production potential may eventually plant an equivalent surface.

As in the other MS, on the basis of EU regulations, in Italy the transfer of the replanting rights is possible whenever:

- a) the target entity (buyer) did not receive any financial aid for the definitive abandonment of the vines;
- b) the incumbent plantings comply with the European and national legislation (e.g. no unlawful plantings);
- c) the evolution of the production potential comply with all the requirements of European and national legislation.

Also, the entity who purchases the planting rights must not claim any financial aid for the definitive abandonment of vine plantings and it should not sell any planting in the next five campaigns following the acquisition.

Generally speaking, the general principles of the CMO for wine were applied to the transfers of planting rights inside the regions. However, some Italian regions set up some constraints concerning the transfer of replanting rights among regions. For example, the autonomous province of Trento allowed the transfer of replanting rights from the reserves of other Regions or Autonomous Provinces if the rights are used to produce PDO or PGI wines. Also, the transfer to other regions of replanting rights resulting from the grubbing up of vines in

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<sup>24</sup> ODG Organisme de gestion.



the province of Trento is not allowed. During the 2000, other regions or provinces (Emilia Romagna, Trentino, Puglia, Sicily, etc) temporarily blocked the transfer of planting rights to other regions. The region of Tuscany blocked the entry and exit of planting rights in order to ensure a better management of the production potential in the region. Furthermore, in Sicily, some territories like PDO Etna and smaller islands, the transfer of replanting rights towards other regions was blocked.

In the case of the transfer of planting rights from a non irrigated area to an irrigated area, a reduction in the surface transferred equivalent to 20 percent is applied. In the particular case of the transfer of replanting rights from a PDO area from other regions to a PDO area in the Trento province, the yields in both regions are compared and adjusted if necessary.

In order to achieve the transfer of replanting rights, a certification confirming the existence of the replanting right and a certified copy of the contract purchasing the planting right are required. In some cases, there were problems with the recognition of the certification of planting rights coming from other regions.

In Italy, replanting rights are allocated to the farmers that grubbed up a surface with vines. Planting rights should be used within a period of 8 campaigns, following the grubbing up period. Some particular cases of grubbing up of vines (unlawful plantings, experiments, etc) do not generate replanting rights. At the end, the new plantings resulting from the transfer of replanting rights must be registered in the regional vine registers.

**Hungary** - In Hungary, there are three types of plantation rights considering their origins and the period of use:

- a) Plantation rights derived from the grubbing-up authorized from 1/5/1996 to 30/04/2004, which could be used by the owner until 31/07/2010;
- b) Plantation rights derived from the grubbing-up authorized from 1/5/2004-31/07/2008, which can be used by the owner during 8 campaigns following the grubbing-up;
- c) Plantation rights derived from the grubbing up authorized from 1/8/2008, which can be used by the proprietary until 31/05/2015<sup>25</sup>.

Planting rights can be used only for plantations of vines for PDO or PGI wines. The principles of free transfer of planting rights between Hungarian regions apply. After expiration, plantation rights are transferred directly to the national reserve.

In Germany, the flow of replanting rights between regions is quite limited. The transfer of planting rights from steep slopes (> 30%) to plains is forbidden as it is a case of transferring planting rights from PDO to non-PDO areas.

Currently, Portugal allows free transfer of replanting rights between regions. In the Douro area, the production of port PDO wines requires that the producer will own not only a vine replanting right but also a right to produce port wines<sup>26</sup>. In general, the prices paid for replanting rights having the right to produce PDO Port Wines are around 10 times higher than the price of replanting rights for the production of other category of wines<sup>27</sup>.

In Germany there are no brokers who deal with planting rights. It is an open market where transactions on planting rights happen among private owners. In contrast, in Portugal wine brokers play a role in the transfer of planting rights.

<sup>25</sup> In line with the current regulations of the CMO.

<sup>26</sup> Port wines are produced with the addition of "eaux de vie". The amount of rights to produce Port PDO is set up every year by the Interprofessional body of the Port Wine Institute.

<sup>27</sup> The prices of replanting rights to produce Port PDO wines can reach an average value of 10 000 to 15 000 €/ha.

### 2.3.2. National and Regional Reserves of planting rights

Following the introduction of Regulation (EC) N° 1493/1999, Article 5(1), Member States should establish national and/or regional reserves for planting rights. However, Member States have the possibility to choose the *effective system* for managing planting rights as an alternative to the reserve system (requiring a derogation) (see Article 5(8) of Regulation (EC) N° 1493/1999). The new CMO for wine (2008) kept the national and regional reserves systems "in order to improve the management of wine-growing potential and to promote the efficient use of planting rights and thus to further mitigate the effect of transitional restriction on plantings"<sup>28</sup>.

**Table 2.2. - An overview of the structure of the reserve systems in the EU-27 (partial list)**

	National reserve	Regional reserves	"Non-reserve system"
Czech Republic	yes	no	no
Germany	no	yes	yes
Greece	yes	no	no
Spain	yes	yes	no
France	yes	no	no
Italy	no	yes	no
Cyprus	yes	no	no
Luxembourg	no	no	yes
Hungary	yes	no	no
Malta	yes	no	no
Austria	yes	yes	no
Portugal	yes	no	no
Slovenia	yes	no	no
Slovakia	yes	no	no

Source: adapted from Council Regulation (EC) N° 479/2008 of 29 April 2008.

**Spain** - Spain created one national reserve and several regional reserves of planting rights. Some of the regions (*Comunidades Autonomas*) decided not to create their own reserves. The main goal of these reserves consists of the attribution of vine planting rights to the national reserve on the basis of the demand for planting rights. After a period of three years in the regional reserves, planting rights not sold or distributed are transferred to the national reserve. Also, replanting rights in the portfolio of owners located in a region (*Comunidad Autonoma*) without a regional reserve are transferred directly to the national reserve after expiration.

In Castilla La Mancha and La Rioja, the planting rights distributed from the regional reserve were basically distributed for free to young farmers. Some of the planting rights from the reserve were distributed to wineries.

<sup>28</sup> See Council Regulation (EC) N° 479/2008 of 29 April 2008, L 148/7.

**France** - France established a national reserve following the 1999 reform of the CMO for wine<sup>29</sup>. The main goal of the national reserve is the improvement of production potential and to contribute to a better efficiency in the management of planting rights. The planting rights in the reserve have two main origins: planting rights proceeding directly from owners and whose members did not make use of them in the legal timeframe (expired). Also, France AgriMer has the possibility to purchase and to sell planting rights to/from the reserve. Planting rights in the reserve are valid for a period of five campaigns.

Following the creation of the national reserve, prices for planting rights were established at 1750 €/ha (campaigns 2002/2006), based on the free market reference. The prices diminished progressively and in 2011/2012 the sale of planting rights from the reserve reached the unique price of 1000 €/ha. Considering the overall status of the wine market, for this campaign FranceAgriMer decided not to purchase planting rights from the market, in relation to the high stock level. According to interviewees, market prices in the free market are set up according to the price of planting rights in the reserve. Planting rights may also be granted for free to young farmers, in the case they respect the criteria of the young farmers subsidy<sup>30</sup>.

The buyer of the planting rights from the reserve must have obtained previously an authorization for planting vines. Therefore, planting rights will not be granted if producers have not justified owning a right to produce.

The functioning of the reserve is adapted every campaign depending of the status of the wine market in the previous campaign and the quotas authorizing new plantings. The stocks of planting rights increase through time, currently reaching 15 000 hectares. Therefore, FranceAgriMer decided not to purchase additional planting rights from the market.

**Italy** - Some of the planting rights were distributed both for free and after payment. Compensation for the planting rights provided from the regional reserve depends on every region. This amount is reduced to one-third in the case of viticulture in the mountains and terraces<sup>31</sup>.

Planting rights free of charge were mainly distributed to young farmers establishing their first vineyard. For example, in 2012, Tuscany granted 203 ha of planting rights for vines to young farmers (under the age of 40 years old) in order to stimulate jobs and entrepreneurship in PDO and PGI wines (project *GiovaniSi*).

<sup>29</sup> The French reserve of planting rights is managed in accordance with the Article R.665-4 of the Rural Code and Maritime Fishery.

<sup>30</sup> DJA Dotation jeunes agriculteurs, in relation with a PDA (plan de développement agricole) Agricultural developing plan and a SMI (Surface minimale d'installation), minimum size of the farm.

<sup>31</sup> COPA COGECA (2011), Response to the questionnaire on managing planting rights in the wine sector [VI(11) 6259], Brussels, 6 p.

**Box 2.1. - The Case of Tuscany Region: distribution of 203 ha from the reserve to young farmers (2012)**

The distribution of the planting rights from the reserve privileges the most recent established PDO (10 ha each). The other PDO and PGI in the region are also priority (5 ha each). In addition, the remaining planting rights (113 ha) are shared proportionally among the other provinces according to the register of vine surfaces. Planting rights granted with the priority criteria not assigned will be distributed proportionally to the various provinces.

New planting rights transferred from the reserve are subject to minimal (0,5 ha) and maximum surfaces (2 ha). As a result of an excess of fragmented regions, minimal surfaces can be established at 0,3 ha for vine plantings in mountains and terraces. Planting rights granted from the regional reserve must be planted within two campaigns, following assignment.

The planting right does not ensure the right to produce in a PDO or PGI. Therefore, producers must obtain a right to produce within two campaigns after the assignment of the planting rights. In the case that the planting rights proceeding from the reserve will not be used during the legal period, the rights will be transferred back again to the regional reserve. Also, the planting rights must maintain the rights to produce in the PDO or in the PGI for at least a period of five years.

In the case of the demand for planting rights outstripping the amount made available by the reserve, the region will apply priority criteria in order to ensure that the system covers the greater number of requests complying with the minimal surface criteria.

Planting rights are granted for free to young farmers establishing their vineyard for the first time and aged less than 40 years old. In other situations, planting rights will be granted in exchange of a fee to be paid to the regional government. In the case of viticulture in the mountain or terraces areas, the buyer will pay only one third of the regular fee.

As a general rule, planting rights granted from the regional reserves are distributed according to priority criteria: category of wines (PDO, PGI), minimum and maximum surfaces, priority territories (mountains or terraces). Planting rights not used within a period of eight campaigns following the grubbing up of vines will be automatically transferred to the regional reserves.

**Hungary** - After the accession to the European Union, Hungary implemented the "effective system". Therefore, up until 2010, the Hungarian system did not have a national reserve of planting rights. Following the introduction of the 2008 reform of the CMO for wine, the payment agency (ARDA) established in 01/08/2010 a national reserve from planting rights formed at the moment of the EU accession and not used by producers until 31/7/2010. Twice a year, the payment agency publishes information about planting rights sales from national reserve for an indicative announced price. The paying agency (ARDA) organizes planting right sales twice a year, a campaign in spring and in autumn. Therefore, information about prices of planting rights in the reserve is not provided on a continuous basis.

- The planting rights derived from 1/5/1996 to 30/04/2004 can be used for plantings until the end of the 13<sup>th</sup> campaign after the date of its initial formation;
- The planting rights derived from 1/5/2004 to 31/7/2008 can be used for the plantings up until the 5<sup>th</sup> campaign after the date of the transfer to the national reserve.

Planting rights from the reserve can be distributed both for consideration and for free. Basically, young farmers are concerned by the distribution of planting rights for free.

Planting rights acquired from the reserve must be used until the end of the second wine year after its acquisition. ARDA announces the sale of planting rights from the reserve through an official communication. Planting rights purchased from the national reserve cannot be sold again.

According to the Hungarian rules, ARDA can publish the price in a range between 20 000 and 150 000 HUF (67-500 €/ha), where the effective price is formed after discount regarding the following factors:

- if the planting right is used for a plantation higher than 1.5 ha as a contiguous area,
- if the plantation will be realized in an area classified as I<sup>st</sup> class
- if the plantation will be realized as a replanting in a homogenous larger vineyard.

The average price of planting rights from the national reserve arrives at 70 000 HUF (230 €/ha). Prices are not published on a continuous basis.

Prices established for the planting rights from national reserves vary among other countries. For example, in the Czech Republic prices were established at 40€/ha and in Portugal at 300 €/ha. These prices may be subject to change.

In Germany, only Franconia and Hessen apply regional reserves for planting rights, in the other regions the open market of planting rights functions. In Germany, prices for planting rights from the regional reserves depend on each region. In Germany and Portugal, planting rights from the reserves may be granted for free or may be subject to consideration. In the Bayern region (Franken wine region): young wine growers (< 40 years) with complete training or a higher degree can obtain planting rights for free from the reserve.

Contrary to most countries, prices set up for the French national reserve influence the prices on the free market for replanting rights.

## 2.4. Regularisation of irregular plantings

According to the 2008 legislation<sup>32</sup>, a given amount of unlawful plantings exist in the European Community as a result of the violation of the transitional prohibition of new plantings. This phenomenon is an unfair competition and exacerbates the wine crisis.

A distinction was established for the unlawful vineyards planted before 31 August 1998 and an opportunity was given to regularize these plantings<sup>33</sup>. Therefore, unlawful plantings before this date were not subject to any grubbing-up obligation. Producers were allowed to regularize these unlawful plantings before 31 December 2009 in exchange of the payment of a fee. After this period, grubbing-up of unlawful plantings became mandatory. For the unlawful plantings realized after 31 August 1998, grubbing up became mandatory. Sanctions apply for non-compliance with these obligations.

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<sup>32</sup> See Council Regulation (EC) N° 479/2008 of 29 April 2008, L 148/6.

<sup>33</sup> Regularisation was possible under the conditions of Article 2(3) of Regulation (EC) N° 1493/1999.

## **2.5. Planting rights in the European context: an overview of country surveys**

This section summarizes the opinions surveyed by the four sections of a specific questionnaire (ANNEX II), concerning evaluations of planting rights regime.

The interviewees were more than 40 and include professionals working in wine companies, winery directors, operators in large companies, directors of DO consortia and professionals in federations representative of major wine companies. The survey covers the most important regions in the major wine producing countries: Italy (Piemonte, Veneto and Tuscany), Spain (La Rioja- Castilla La Mancha), France (Aquitaine and Languedoc-Roussillon), Germany (Bayern and Rheinland-Pfalz), Hungary and Portugal (Alentejo, Douro).

### ***Planting rights and the development of farms***

According to most of the interviewees, planting rights had no or a little influence on the development of dynamic farms in Europe; the producers who have needed to expand their activity have succeeded, despite the planting rights scheme. One interviewee (non classic area) in Piemonte thinks that the planting rights regime slowed the development of dynamic farms, while the big companies in Spain think that the planting rights regime has had a great influence especially on those DO areas which have achieved high values in the market.

Farms that increased their size acquired planting rights either through the reserves, they planted new vineyards (acquiring planting rights from the market) or purchased vineyards already planted. In France, the purchase of vineyards already planted was the dominant method of acquiring planting rights (80% of overall acquisitions). In Italy (Tuscany, Piemonte and Veneto), as well as in Spain, the regional reserves represent a modest role in the acquisition of planting rights (10%). In these regions the most used forms to acquire planting rights were the plantings of new vineyards through the acquisition of replanting rights from the market (50%-70%) and the purchasing of vineyards already planted. The German situation is a little bit different from the previous European cases. The lease of vineyards is particularly significant in the Rheinland-Pfalz (90%) while in the Bayern region the purchase of vineyards already planted was the most significant means used to expand the size of the farms (60%). In Hungary, there was a major change with the establishment of the reserve in 2010. Before 2010, the acquisition of replanting rights from the market represented 75%. Following the establishment of the reserve, this situation changed completely and today the acquisition of planting rights from the reserve reaches 70% of overall planting rights.

### ***Planting rights from the reserve***

In France, according to the interviewees, the acquisition of planting rights from the reserve was complex. In Aquitaine the rights were rather limited while in Languedoc-Roussillon there was a good availability of planting rights and the most important issue is to provide authorizations to transfer those rights. In Italy opinions converged. Accordingly, interviewees in the three regions agreed that the mechanism of planting rights provided by the reserve was complex and the rights were not enough. In Castilla La Mancha, the interviewees showed opposite opinions about the degree of complexity of acquisition of planting rights and of the availability of the rights; instead, in Rioja, interviewees agreed that the acquisition of planting rights from the reserve was simple but the rights were limited. The interviewees in the other countries (Portugal, Germany and Hungary) considered the mechanism of acquisition of planting rights from the reserve most often to



be simple. In Portugal the rights were too few while in Germany (where the regional reserve is applied) and in Hungary there was a good availability of rights. In Hungary, the only problem was that the acquisition of rights was not continuous; the paying agency (ARDA) organizes planting right sales twice a year, a campaign in spring and another in autumn. Overall, big companies (in France, Spain and Italy) considered that the acquisition of rights from the reserve was usually complex and the rights were limited.

In Europe, the planting rights from the reserve, overall, were both obtained for free and for consideration. In most cases young farmers benefited from planting rights for free as a measure in favour of generational change. In France, planting rights may also be granted for free in the case of programmes established to modernize farms or under exceptional circumstances. In 2010, the price for purchasing planting rights from the reserve was 1500 €/ha; one unique price of 1000 €/ha was set up for the planting rights coming from the reserve for the period ranging from 6 February 2012 to 30 June 2012.

In Piemonte, planting rights were subject to consideration and prices have been differentiated. The standard price was 5,000 €/ha, however, 500 €/ha was the price for a planting project of public interest in mountain areas or for plantation for scientific or extension research. In Tuscany and Veneto planting rights from the reserve were distributed for free and subject to consideration. In Tuscany, prices varied according to the general market conditions between a minimum of 1,500 €/ha and a maximum of 4,000 €/ha; the last auction fixed the price around the minimum (there is a consistent supply of planting rights and a low demand). In Veneto, the average price of rights acquired from the reserve was 5000€/ha.

In Germany, planting rights for free in the Bayern region (Franken wine region) were assigned to young farmers with complete training or entitled with a higher degree. The price in the Bayern region was 10 000€/ha.

In Hungary, planting rights from the reserve were assigned both for free and for consideration. According to the Hungarian rules, the national agency (ARDA) can publish the price between 20 000 and 150 000 HUF (67-500 €/ha), where the effective price is formed after discount considering several factors (location, size of the contiguous surface, replanting in a homogenous larger vineyard). The average price of planting rights from the national reserve reaches 70 000 HUF (230 €/ha).

In Portugal, planting rights from the reserve may be distributed for free and for consideration. Prices of planting rights from the reserve are established at 300 €/ha.

One of the main problems identified in France is the convergence of interests between buyers and sellers. Also, the prices of planting rights coming from the reserve may be considered too high for some regions like Languedoc-Roussillon. In Tuscany and in Piemonte, the administrative procedures have made the acquisition long and complicated. In addition, producers in Piemonte complain about the scarcity of information and probably such scarcity of information determined a low demand for planting rights from the regional reserve. Also in Veneto, at first, demand for planting rights was lower than the supply; later, when the reserves were empty, there was no further possibility to acquire planting rights. In Portugal the main problem was that the rights were too few. Also in Castilla La Mancha, one of the main problems pointed out was the scarcity of rights, as well as the timeframe during which planting rights were available and the conditions established to get the rights. In Rioja there are some shortcomings because decisions related to planting rights distributed from the reserve have been based on political approaches. Also, there has been a lack of rights as most of them have corresponded to Mancha; in addition, there were some difficulties to comply with the norms. The biggest wineries in Spain considered that there are complex mechanisms and several differences among regions. In Germany,

differences may occur through wine regions. For example, Bavarian Wine Law (BayWeinRAV – Franken Region) allows planting only in areas that grant the production of quality wines. So sometimes there are discussions about the production capability. Also, the displacement of planting rights from steep slopes (>30% gradient) to flat vineyards is not allowed. In Hungary, the main problem is that ARDA announces planting right sales twice a year, so the acquisition is not continuous. Planting rights purchased from the reserve has to be used until the end of the second wine year after its acquisition.

### ***Planting rights from the market***

There are significant differences regarding the evolution of prices between regions. In some areas the prices were considerably different from the average. In Languedoc, the price was highly variable, following the expiring date of the planting rights and the price set up by the national reserve. Local prices may vary considerably: this was a consequence of the influence of the spot market and was due to the fact that there was no market with public quotations available. The market lacks effective transparency; there are a lot of buyers and sellers but they are isolated. In Aquitaine, in contrast, there were no fluctuations of prices considerably different from the average because in this region there has been great transparency of the market. In Piemonte, the prices paid by farmers have been very differentiated. There have been no prices considerably different from the average considering only the planting rights defined by the CMO for wine. However, in some cases prices may vary considering the specific right granted by a regulatory council (Consortio) to produce some PDO wines. The Consortio here may intervene to regulate the supply. Producers in the classic area willing to enlarge their production of the consolidated denomination had to pay very expensive prices to acquire a specific right to produce wine from the designation of origin (Asti with moscato variety or Barolo/Barbaresco with nebbiolo variety). In Tuscany, there were cases with prices considerably different from average particularly in a specific PDO of great and consolidated reputation (surfaces have been restricted at the region-level in order to meet a triennial program of production). As a consequences, in Tuscany there is a double mechanism to control the surfaces of vines: a) the planting rights scheme provided by the CMO for wine; b) the regional triennial programme of production that decides if it is possible (or not) to increase vineyards for PDO wines. In this framework, in specific circumstance, the prices have reached high values. In Veneto, in some areas prices reached a peak of 15,000€ because of the concentration of demand for planting rights in these specific areas. In Rioja, there was a trend to increase prices from 20,000 €/ha to 30,000 €/ha before the international crisis: part of the explanation lies in the fact that rights come from the same region, which is small and prices go up because there is a limited supply and it is very sensitive to demand. As agreed by interviewees, there have been no important divergence from average prices because the market is transparent and there were no special circumstances to justify differences. A great difference can be observed by German wine regions. In the Bayern region (Franken wine region) after the international crisis the average prices for planting rights ranged between 5,000 €/ha to 10,000 €/ha, therefore prices for planting rights increased slightly. In Hungary, the planting right market exists since EU accession. Between 2004 and 2007, a strong increase of price can be observed from 20 000 HUF/ha (80 €/ha) to 120 000 HUF/ha (480 €/ha), because of the increasing demand due to the vineyard restructuring and conversion measure (in Hungary, after EU accession, this is the most important measure of the CMO for wine). Differences in prices from the average happened occasionally; after the launch of the national reserve, the average price of planting rights has been decreasing.

In Languedoc Roussillon and Aquitaine, planting rights were purchased mainly at the regional level. In Languedoc Roussillon, planting rights came mainly from local brokers (80%). In Aquitaine, the Federation of Grands Vins de Bordeaux played an important role



in this market. In Piemonte, the origin of planting rights changed over time. At the beginning, exchanges were mainly local, but at the turn of the century, the transfer from regions in South Italy (Puglia and Sicilia) became important. After the prohibition to bring planting rights from outside the region, farmers again purchase planting rights locally and in the Piemonte region. When it was possible to acquire planting rights outside Piemonte, the farmer organisations have had an important role to establish relationships with the corresponding organisations or independent brokers in Puglia and Sicily. The transactions of planting rights within Piemonte were favoured by word of mouth, technicians of extension services, or Farmers Organizations. In Tuscany, most of the planting rights came from other regions (60%), but only exploitable to produce PGI wines. Local brokers and brokers from other regions participated in the transactions. Sometimes transactions happened among members of the same Producers Organisation (PO). In Veneto, most of the acquisitions of planting rights came from the Southern regions (Puglia, Sicily) (80%). Local brokers were the most important intermediaries (70% of all transactions).

In Castilla La Mancha and in Rioja most of the planting rights consisted of transactions within the region (80%). In Rioja, local brokers played a minor role. Most of the transactions were held among private owners, instead of agents. In Rioja, local brokers and brokers from other regions were quite active in the transactions. A great number of those exchanges happen among private owners, instead of agents.

In Germany, there are no brokers who deal with planting rights. It is an open market where transactions of planting rights happen among private owners. There is a difference in the distribution regarding wine regions, because the majority of plantations are realized in Kunság wine region, for which mainly the planting rights originating from the same region are used. The other wine regions use principally the planting rights created in Kunság region. In Portugal, the regions of Minho and Ribatejo were major providers of replanting rights for the regions of Alentejo and Douro.

In Languedoc-Roussillon, the main problems are associated with the need to obtain a previous authorization to plant vines: criteria and quotas according to the PDO or PGI wines. Furthermore, some other difficulties were related to the time span, the administrative documents to provide, etc. According to big companies in France, the main problem was the management of transfers through the national agency (FranceAgrimer).

In Tuscany, as well as in Piemonte, the main problems were related to the phenomena of fraud (invalid rights, especially inside transition from one region to another). The problem has been overcome in recent years by the establishment of a National Archive of rights that permits the certification of rights validity within a single register. Moreover, in Piemonte the process to certify the authenticity of the planting rights available on the market was long and rather complex. In Veneto, in some limited cases, problems came from the recognition of administrative certification of planting rights.

In Castilla La Mancha there were no problems. The only difficulty was the need to pay the right price, which has been considered high. In Rioja, the main problem was the transfer from other regions which is more difficult because the administration of the region supplying the rights used to cause some administrative difficulties. Prices were high when coming from Rioja and cheaper from other regions, but with limited number.

According to big companies in Spain, most of the planting rights are in the hands of small producers. Transfer among communities is not easy; there has been speculation and the prices are high. In Bayern (Franken wine region) there is agreement that there is no problem in the acquisition of planting rights on the market. In the Rheinland-Phalz, the main problem is the shortage of planting rights. In Hungary, up until 2010 there was an abundance of planting rights in the market, but currently few planting rights are available

and it carries difficulties in terms of the availability of planting rights for vineyard relocation. In Portugal, grape growers must ensure that rights are legal (checks in the National Institute of Vine and Wine –IVV- about the legality of the rights are necessary).

### ***Final remarks on the planting rights regime***

Overall, the farms who have expanded their area under vines have allocated most of the additional surface areas to produce grapes for wine PDO; in some cases (as with Germany and Portugal) the new areas were allocated only to this typology. In Aquitaine, 80% was allocated to produce grapes for wine PDO, while in Languedoc most of the new surface was destined to grapes for wine PGI. In Tuscany, the answers have varied in the different areas. Where there has been the opportunity to increase the production of PDO (in compliance with the triennial regional programme of development), all planting rights have been utilised for these typologies. Otherwise, planting rights coming from other regions have been invested in surfaces devoted to the production of PGI (this typology has experienced the main increase in absolute terms).

The other mechanisms for regulation of supply that interact with the planting rights regime regard mainly limitations related to yields. In Spain, according to the big companies, the yields fixed by DO regulatory councils have been an important factor.

In Aquitaine, the interviewees support the claims of the interprofessional bodies to regulate the supply. The regulation of the wine market and more precisely the regulation of the capacity to produce does not depend only on the vine producers but also on all the actors that contribute to the balance of the wine chain. Therefore, it is only by taking into account all the issues at stake that the interprofessional bodies can make a decision.

In Languedoc, the planting rights regime interacted with other mechanisms of supply control and the authorizations are granted according to the quotas of planting rights established for the PDO wines. The regime of planting rights is considered as complementary to the other mechanisms used to regulate the wine sector; therefore it does not interfere.

In Piemonte, the supply of PDO wine can be capped by Consortia of the Denomination. As already mentioned, the most important PDO wines are produced on a constrained area under vine. In addition, the Consortia if necessary can provide guidelines aimed at restraining the harvest (compulsory reduction in yield). The Tuscany region, with regional law n. 21 of 2002, has created an additional mechanism for the control of production that doubles the control of vineyards through the planting rights scheme offered by the CMO. The objective of this second mechanism is to allow the growth of the production of wines with PDO only if market conditions are favourable and the market equilibrium can be ensured. The planning is based on a process of consultation that involves local governments (provinces and region) and the wine producers' associations, professional organizations and agricultural cooperatives and consortia. On the basis of the results of such processes the region and provinces assume an act of planning that is binding for three years. According to the triennial programme, a producer of wines with PDO is not allowed to extend its production simply by acquiring a planting right, but it is necessary to obtain a corresponding right (quota) to produce resulting from regional law. This mechanism of control is not the only one operating to keep the market balance pursued within the triennial programme. For example, consortia, if necessary, can play a relevant role to ensure the achievement of planned objectives, providing guidelines aimed at restraining the harvest (compulsory reduction in yield).

In Hungary, the planting rights regime has an interaction with the implementation of the support for vineyard restructuring and conversion measure of wine CMO; the national rules

favour the application of lower scored planting rights for the plantations and the creation of vineyards on the 1st classed areas.

There has been a great diversity in the answers regarding the effect of the planting rights regime on the dynamics of the vineyards. Overall, there was greater agreement on the positive effects, especially for the interviewees in Italy, France and Germany.

In Hungary, according to the interviewees, there were no effects, because the demand for new plantation was lower than the available amount of planting rights. The interviewees state that actually it is true, because in Hungary there are still sufficient available planting rights, but in the near future the ageing of vineyard and a considerable elimination of production potential will lead to the shortage of planting rights and to the difficulties for new plantation.

In Spain, there has been a great diversity in the answers of interviewees. In La Mancha, four think there are no effects, one thinks that there are positive effects and another one agrees about the negative effects. Those who think about not having effects do not make a big difference between the three different reasons.

Regarding the final comments, most of the interviewees stated that the total abolishment of planting rights could be a danger for small growers and it should have a negative effect on DO. The freedom to have any number of planting rights in the market could have a negative effect on supply control. Small growers find difficulties to cope with it and big enterprises have the financial resources to buy them. In particular, in Veneto there is an overall positive view of the system of planting rights: such a system has favored the transfer of planting right from regions with low quality soil to those with higher quality soil. Increasing the variety of offers that better satisfy demand result in better wine quality and farmer income. The planting right system could be eliminated in the case that the market were characterized by an increase in demand and prices, but this scenario does not seem to apply to the future of the wine market. Also, for young farmers the system is not a high barrier to the development of a vineyard. Furthermore, the planting rights regime offers a warranty of investment as it contributes to the reduction of the risks associated with the cultivation of a perennial plant.

Some opinions regard the distribution criteria of the planting rights. In Aquitaine, some interviewees state that countries should distribute the planting rights according to the needs of the market and therefore for this purpose market studies should be undertaken previously. In Piemonte, the producers in the non classic area think that it would be useful to have a constraint on plantation based on an effective qualitative criterion and not simply on a quantitative basis. Some interviewees in Aquitaine consider that it would be a great idea to increase new planting rights for the farms obtaining good performances. Others in Languedoc stress that it would be a good idea to optimize the access to planting rights by young farmers and by small and medium companies.

According to some interviewees, it would be opportune to consider regional management and not only a system centered at the national level. In this regard, in Tuscany the regional system of triennial programme of production of wines PDO is considered particularly effective by private operators and by public administrators. All stakeholders have underlined the fact that the operative control of production was achieved through the application of the regional law, rather than the planting rights scheme. Despite this, most have stressed that without the general framework provided by the CMO, the regional law could become weaker. The Tuscan system is judged as a strategic instrument to ensure a positive control of the development of PDO wines. In some production areas, where the role of the consortium has been very strong and tight to avoid uncontrolled growth of production potential, this mechanism has granted producers by speculative operation from

new producers and transition of vineyard has taken place almost entirely through the transfer of vineyards already planted (especially from small operators toward biggest) in the most of the cases among members of the consortium. Of course, the negative impact of the mechanism has been represented by the values of vineyards that have sometimes reached a price per ha difficult to justify. The transfer of planting rights through the market is generally considered preferable in comparison to an administrative mechanism (such as Regional/National Reserve). In this way are facilitated the (big or more efficient) operators characterised by the best capability to operate on the market.

Some interviewees recommend rethinking the current system and to develop a better governance of the whole wine chain. In Rioja, some actors propose that interprofessions should manage the process but others are against the measure because they think that the Regulatory Council is the right representative. According to some interviewees in Languedoc, it is necessary to consolidate the PDO and PGI systems in order to help these collective structures to manage the production potential.



### **3. EVALUATION OF THE IMPACT OF PLANTING RIGHTS ABOLITION: RELOCATION OF VINEYARDS, OVER PRODUCTION AND PROTECTION OF AREAS PRODUCING QUALITY WINES**

#### **KEY FINDINGS**

- Fluctuations in planting area are strongly influenced by variations in wine price assuming a scenario of no planting rights and in which demand is higher than market supply.
- Harvested area at a national level follows trends in wine price variation with a time lag of 5 to 10 years.
- In the, EU grape production shows a profitability higher than other crops.
- The liberalization of planting rights could determine a pressure for structural changes in the EU wine industry, driven by a reduction of PDO wine producers and of smaller farms.

The analysis of the impact of the planned abolition of the planting right regime is a very difficult task because there are many variables involved, inside and outside the EU wine industry. In addition the planned liberalisation should occur between 2015 and 2018, then in 3/6 years.

As a matter of fact it is nearly impossible to develop a reliable quantitative model useful to derive all the relevant effects related to the planting rights liberalisation.

For this reason the study has developed some partial analysis, quantitative and qualitative, useful to set up a logical framework which should help to understand what could happen in the case of liberalisation.

The quantitative analyzes are focused on two different objectives. The first one, consisting of an application of the Nerlove model, investigates the relationship between area under vines and wine price, focusing on how the area under vines reacts to price signals. The second one, consisting in an analysis of FADN data based on a profitability indexes comparison and on a mathematical programming model, investigates the profitability of grape growing in comparison with other crops in some European countries and regions, to understand if there are forces pushing toward an increase of grape growing acreage in case of liberalisation.

The qualitative analyzes cover two different topics. The first one reports on the evolution of production potential in Third Countries with the scope to illustrate how the production potential is evolved where a planting right regime was not applied. The second one reports on the possible impact of the planned liberalisation on the EU wine industry, focusing the possible changes in competitive advantage of various actors.

The pieces of information coming from the qualitative and quantitative analysis are used to evaluate the effect of the planned liberalisation under some scenarios.

### **3.1. Determinants of Grapevine Area**

Controlling supply in wine grape production is critical to wine market behaviour. Given this importance, several different strategies have been adopted to address the most critical issues in wine producing countries all over the world. Policies controlling production vary widely from those giving complete freedom to producers in deciding grapevine planting surface based on market behaviour to policies which implement control measures via economic/financial incentive or disincentive mechanisms to other policies such as that held by the EU which binds production potential to a determined total grapevine planting area, rights of which must be obtained through the proper channels. For this last scenario, the authors find it opportune to determine how planting surfaces controlled under such a policy may adjust to market behaviour in various different contexts. These analyses have been carried out taking into account production responses in terms of total planting surface at both the producer and national levels.

#### **3.1.1. Foreword**

The abolition of planting rights could have dire consequences for the balance of production in the EU winegrape growing sector. Possible effects of this change were studied by analysing the ability of the market to 1) transmit trends in demand via price and 2) to achieve a balance between demand and planting area.

The coordination of production and prices has always been one of the most delicate issues in agriculture and this type of planning becomes increasingly complicated when considered over many years. In such cases, supply planning takes on a further element of inflexibility due to capital binding and the costs associated with the implementation of operations.

An agricultural producer is faced with high uncertainty and risk as neither the quantity nor quality of their output is certain, yet there is a minimum level of input required to obtain this uncertain product. This uncertainty is due to uncontrollable elements: weather and temporal elements, such as production time lags due to biological processes. The result is production uncertainty which contributes to price uncertainty, especially when production decisions have to be made far in advance of marketing the final product, as is the case for wine production. Consequently, the market price for the output is typically not known at the time these decisions have to be made (Moschini and Hennessy, 2001).

As highlighted by Gardner (1987), Alston et al. (1990), De Gorter and Tsur (1991) and Carter et al. (1990), the adoption of agricultural policies aimed at reducing market uncertainty and, as a consequence, income instability is common when the market is faced with low elasticity of supply or demand, as is the case for the agricultural produce market.

#### **3.1.2. The model applied to EU countries with and non EU countries without planting constraints**

In order to evaluate the capacity of producers to maintain planted area in equilibrium with the market, an approach was used that takes price fluctuation over time into consideration as well as response lags and/or leads in planting area. This analysis was carried out in both EU countries with and non EU countries without planting constraints. For the latter, the total area at the national level was not a limiting factor structurally for overproduction. To test this hypothesis, the Nerlove model can be used to estimate supply in response to market prices (Annex III.1). It is assumed that growers make decisions by assessing

information about expected prices. They may base their cultivation plan on 1) the assumption that current prices will continue to be valid in the market in the future (*Cobweb Theorem*) (Ezekiel, 1938, Buchanan, 1939) 2) to a small degree on the prices of the previous year and 3) to a larger degree on expected prices (Nerlove, 1958).

These considerations are especially valid in the case of perennial cultivation such as with vineyards, in which growers plant after carefully considering market trends over the medium term, if not the long term.

This process is a dynamic one, and the average price level is determined from prior experience. In this context, changes in the level of expectation regarding future prices are confirmed by later events. Each year the producers review expected price estimates and then make decisions for the upcoming years in proportion to the error incurred when predicting prices in the past.

### 3.1.3. Sources of data

The model was applied including the most important producing countries, inside and outside EU, considering the time horizon 1976-2010.

European Union: France, Germany, Italy, Spain, Hungary.

Non European Union: Argentina, Australia, Chile, New Zealand, United States and South Africa.

Data concerning the area under vines come from FAOSTAT.

Concerning prices, the choice was made to consider the price of wine (not of grape). As the indicator of wine price, the unit value of exports has been chosen, as new plantation in the last 40 years have been mainly addressed to export. Moreover, the domestic market can be influenced by the adjustment policies adopted by different countries and comparable data are difficult to find<sup>34</sup>.

Data source for unit value of exported wine was UN Comtrade database.

### 3.1.4. Results

Using the planted area as the supply response, the results show different behaviours for different countries (Table 3.1 and Table III.1 in Annex III.1). The model boasts a high goodness of fit for all European Union and non EU countries as can be seen by the values of the adjusted coefficient of determination ( $R^2_{adj} \geq 0.84$ ).

Anyway, considering the evolution of variables utilised in the model, only the output concerning the Third Countries is relevant for the analysis. In the case of EU wine producers it is possible to observe a decrease of area under vine combined with an increase of price and the correlation revealed by the statistical analysis has to be considered a spurious correlation (Simon, 1954). Indeed, the reduction of area under vine in the EU can be the result of an incomplete substitution of the grubbed up vineyards for the production of wine destined for domestic consumption with vineyards for the production of wine destined for export.

In the case of Third Countries, the parallel growth of area under vine and price are consistent with Nerlove assumption and the estimated coefficients reflect actors' response to price signals.

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<sup>34</sup> It was not possible to evaluate the Nerlove model applied to implicit prices referring to production value, calculated using the method described by Anderson (2011) due to the limited historical database (1997-2010).



In the case of Third Countries, price significantly influences the number of hectares cultivated. However, supply response to price fluctuation is not always immediate but usually rather delayed a few years, 4 to 8 years for New Zealand and Australia, where the wine market is less restricted, and over 10 years for South Africa, where the area for grape cultivation is constrained by pedological and climatic factors. These values are consistent with studies that show broad market oscillations and instability with expansion cycles of around 7 years (Anderson *et al.*, 1998; O.I.V., 2000; Anderson, 2011; Labys, 2001; Labys *et al.*, 2006; Mills, 2003). Data show that the effect of lagged prices  $t-1$  is in correspondence with the effect on average prices for the previous cycle (between  $t-2$  and  $t-5$ ). This effect is highly significant for Australia, the United States and New Zealand and slightly significant for South Africa and Chile, with Argentina as an exception.

These results reveal that, in the case of non EU countries, the size of supply is more tightly linked to the market and tends to adjust to price variations in broad lags. Even the short-term fluctuations previously mentioned, of 4 years due to vine growth and production phases, are characterized by an adaptation of supply to price. For this reason, in most non EU countries in which there is a strong link between supply and wine price, contemplation of price may affect fluctuations and quite possibly create an oversupply that could have a very strong impact on wine grape growers' incomes<sup>35</sup> (Hackworth, 2011).

The existence of a broad lag in the adjustment of area under vine to price signals encouraging new plantations, combined with the financial implication of a premature grubbing up of vineyards, reveal the potential usefulness of a tool to control the production potential, able to avoid the supply surpluses risks linked with an inertial growth of area under vine.

A model in which supply responds to wine price was applied to a scenario in which removal policies were encouraged through abandonment premiums, which have been used occasionally over the years by the EU, and more intensely from 1988-1996. No significant results were produced in terms of area response to prices. In particular, prices for abandonment did not alter the structure of the supply model and confirmed the existence of strong conservative elements in growers' choices.

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<sup>35</sup> The downturn being experienced by the South Australia (and Australian) wine industry is unprecedented: i) Total farmgate value of winegrapes has nearly halved in six years, from \$818m to \$361m in 2011; ii) In 2011 over 80% of grapes in the Riverland and 30% of grapes in cool climate regions were sold below cost of production (Wine Australia Price Dispersion Report, 2011).

**Table 3.1. - Summary of results obtained from a Nerlove model estimation in the main European and non European Union winegrape growing countries, with '1 distributed lag', Years 1976-2010**

Country :	Estimated coefficients :						R <sup>2</sup> adj	Short term elasticity	Long term elasticity	Adjustment Coefficient
	Constant	Price <sub>t-1</sub>	Area <sub>t-1</sub>	gam <sub>t-1</sub>	MP <sub>t-1</sub>	T				
France	4.5729	-0.0495	0.6701				0.95	-0.05	-0.15	0.33
	(1.6468)*	(0.0207)*	(0.1184)***							
Germany	2.0250	0.0154	0.8240	-0.0219			0.91	0.02	0.09	0.18
	(0.6849)**	(0.0100)	(0.0598)***	(0.0110).						
Italy	1.2899	-0.0157	0.9054				0.98	-0.02	-0.17	0.09
	(1.1155)	(0.0179)	(0.0809)***							
Spain	3.6754	-0.0453	0.7331	-0.0454			0.96	-0.05	-0.17	0.27
	(1.6915)*	(0.0299)	(0.1222)***	(0.0255).						
Hungary	4.1734	-0.0292	0.6443			-0.0822	0.94	-0.03	-0.08	0.36
	(0.0221)*	(0.6367)	(0.0002)***			(0.0338)*				
Argentina	1.6715	0.0110	0.8635				0.88	0.01	0.08	0.14
	(0.9657).	(0.0192)	(0.0786)***							
Australia	1.2232	0.1174	0.8707		0.2097		0.99	0.12	0.91	0.13
	(0.2953)***	(0.0359)**	(0.0288)***		(0.0567)**					
Chile	0.5352	-0.1202	0.9467			0.0646	0.97	0.12	2.26	0.05
	(0.6500)	(0.0695).	(0.0560)***			(0.0646)**				
New Zealand	2.0737	0.2365	0.7048		0.5460	-0.1023	0.99	0.24	0.8	0.3
	(0.7275)**	(0.1100)*	(0.1001)***		(0.2149)*	(0.0581).				
United States	4.6965	0.1402	0.6282			0.1764	0.97	0.14	0.38	0.37
	(1.3059)**	(0.0439)**	(0.1035)***		(0.0808)*	(0.0131)**				
South Africa	1.0478	0.0610	0.1006	0.0398			0.84	0.06	0.07	0.89
	(2.2083)***	(0.0564).	(0.1889)	(0.0117)**						

Sources: Our processing of FAO STAT data, 1976- 2009; UN Comtrade, 2010.

Values in parentheses are the standard errors of estimate.

Legend for significance of p-values: <0.001 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' >0.1

## 3.2. An explorative analysis of profitability of grape growing

### 3.2.1. Grape growing versus other crops: FADN results

This chapter aims to study the income evolution and the profitability of winegrape growing through an explorative analysis of Farm Accountancy Data Network (FADN)<sup>36</sup> data.

The FADN is a European system of sample surveys conducted every year to collect structural and accountancy data on farms with the aim of monitoring and evaluating the income and business activities of agricultural holdings and of evaluating the impact of the measures taken under the Common Agricultural Policy.

The FADN survey covers only farms above a minimum economic size in order to include the most relevant part of the agricultural activity of the EU Member States, i.e. at least 90% of the total standard gross margin covered in the Farm Structure Survey (FSS). The surveys aim to provide representative data from three categories: region, economic size and type of farming (TF) where the type of farming of a holding is determined by the relative share in the holding's total standard gross margin of each of the enterprises of the holding.

For the purpose of this study, holding's income is measured by the farm net value added (FNVA), which means the compensation of all production factors (land, capital and labour) both owned by the farm and external. It is equal to outputs (production value) plus public support (current subsidies minus taxes), minus both intermediate consumption (specific costs and farming overheads) and depreciation. Thus, it is an indicator of the economic performance of the farms from which wages, rents and interest still need to be paid and own factors compensated. This indicator is sensitive to the production methods employed: the ratio (intermediate consumption+depreciation)/fixed factors may vary and therefore influence the FNVA level.

Drawing on the FADN database, this chapter analyzes the income evolution from 2000 to 2008 of Specialist vineyard farms in five European countries: Italy, France, Spain, Germany and Hungary (Figure 3.1) and as well as within these countries in some selected regions<sup>37</sup> (see Figures 3.2–3.5).

When the number of holdings in the sample is sufficient<sup>38</sup>, a deeper analysis at the regional level was conducted in order to compare the profitability of grape growing versus other crops at the level of the particular type of farming. For the particular TF analyzed, the average composition in terms of shares of each enterprise as percentage of total output is reported in Table 3.2.

In particular in order to assess the potential movement of holdings from a non winegrape TF to a winegrape TF as a result of the liberalisation of planting rights regime, income results for TF Quality wine, Wine other than quality and Quality and other wine combined has been compared to the group including farms from TF Field crops and vineyards and Specialist cereals, oilseed and protein crops in which vineyards area represents at least 10% of the agricultural utilized area (the hereafter named Comparable TF). Holdings belonging to Specialist cereals, oilseed and protein crops with vineyards area larger than 10% of UAA are present only in Italy, France and Spain (Tables III.3-III.7, Annex III.2).

<sup>36</sup> For further information on FADN see: <http://ec.europa.eu/agriculture/rca/index.cfm>.

<sup>37</sup> The following regions have been selected: Rheinland-Pfalz, Bayern for Germany; La Rioja and Castilla-La Mancha for Spain; Aquitaine and Languedoc-Roussillon for France and Piemonte, Veneto and Toscana for Italy.

<sup>38</sup> According to rules on non-disclosure of data and the secrecy of statistics results based on less than 15 observations (holdings) cannot be published.

In order to have a more reliable comparison between TF, farms have been further grouped according to utilized agricultural area and total assets size (Tables III.8 and III.9, Annex III.2). For total assets, which include only fixed and current assets in ownership, capital indicators are based on the value of assets at closing appraisal.

Finally, within each particular winegrape TF for the selected regions, income variation according to classes of vineyards are used to understand if the planting rights regime may represent a limit to the increase of profitability and is expressed in terms of Farm net value added by average work units (Figure 3.6–3.10).

According to the FADN weighting system, the data reported at the level of Principal type of farming, Specialist vineyards are representative of the Universe, while the analyses conducted at the level of Particular type of farming and/or classes of surface or capital refer to the FADN sample.

**Table 3. 2 - Main accountancy results for Specialist vineyards, 2008**

	Number of holdings		size of holdings				average results per holding (EUR current)						
	Sample farms	Farms represented	Utilised Agricultural Area - UAA (ha)	Vineyards (ha)	Labour input (AWU)	vineyards / UAA (%)	total output/ UAA (€/ha)	total output per AWU	Total output	Wine and grapes*	Farmnet value added	Farmnet value added /UAA (€/ha)	Farmnet value added per AWU
Germany	200 - <500	7,540	13	9	2.55	71	10,847	53,555	136,565	125,765	64,528	5,125	25,327
Spain	200 - <500	48,950	23	15	1.45	64	1,422	22,559	32,710	28,186	22,291	969	15,395
France	1000 - <20	51,220	21	14	2.5	70	8,124	67,003	167,507	157,533	84,773	4,111	33,866
Hungary	40 - <100	7,570	7	5	2.38	74	8,802	25,187	99,945	53,928	21,499	3,157	9,051
Italy	500 - <100	77,340	9	6	1.62	71	7,990	44,981	72,870	67,332	47,437	5,201	29,265

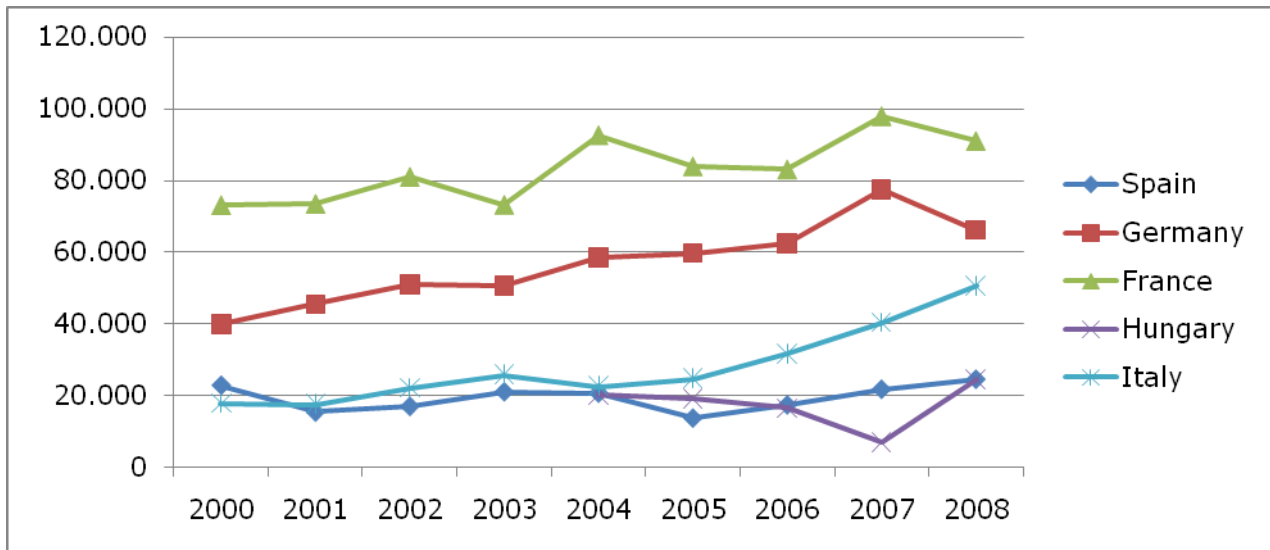
\* Table grapes, grapes for quality wine/table wine, miscellaneous products of vines (grape must, etc) ,wine, vine by-products (marc,lee,etc.) and raisins

Data source: EU-FADN - DG AGRI

For Specialist vineyards there is a clear division between the group composed of France and Spain and the group composed of Germany, Italy and Hungary in their structural characterization surface.

France stands out in the winegrape growing category, with its specialised farms achieving excellent results in terms of productivity and income, especially with respect to the labour factor.

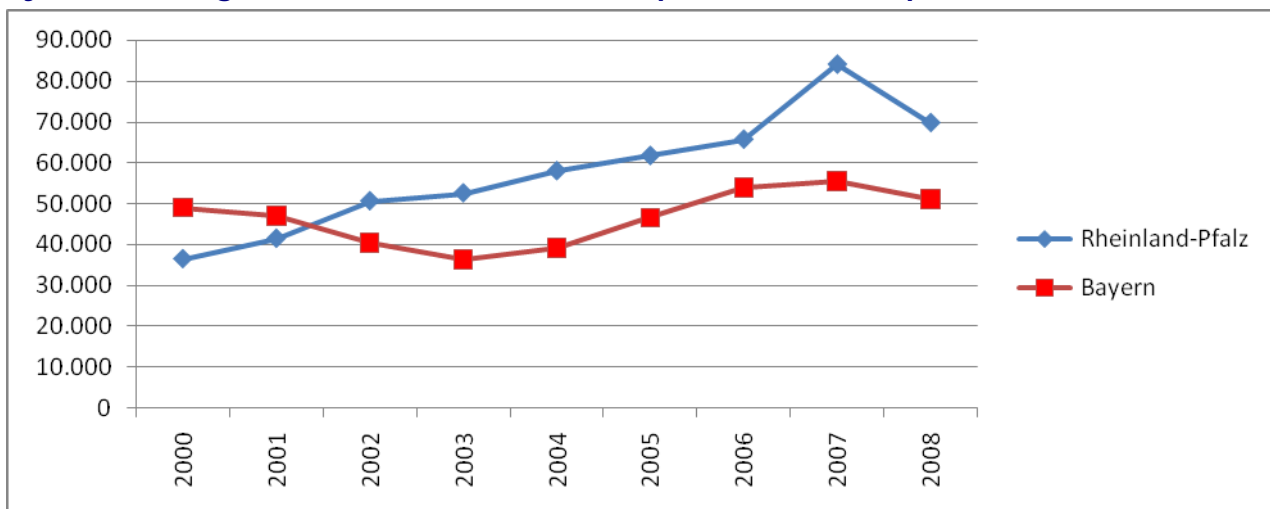
**Figure 3.1. - Evolution of Farm Net Value Added for Specialist Vineyards - EUR data deflated\*\* and expressed in 2005 prices**



\*\*Implicit Price Deflator, by Expenditure, Measurement, Country and Year

Source: EU-FADN - DG AGRI and UNECE Statistical Division Database.

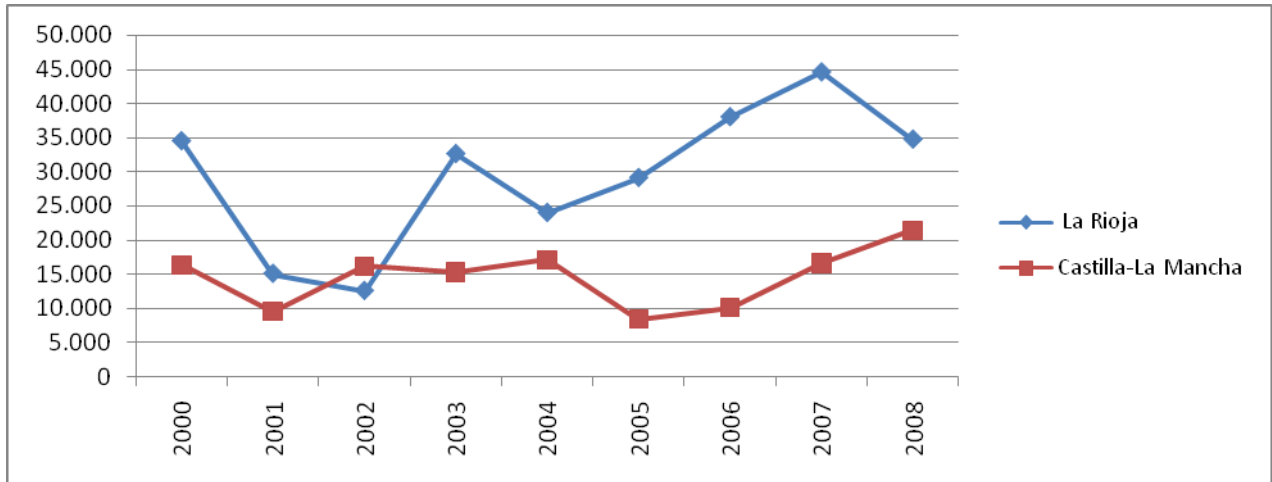
**Figure 3.2. - Germany: Evolution of Farm Net Value Added for Specialist vineyards by selected region - data deflated\*\* and expressed in 2005 prices**



\*\*Implicit Price Deflator, by Expenditure, Measurement, Country and Year

Source: EU-FADN - DG AGRI and UNECE Statistical Division Database.

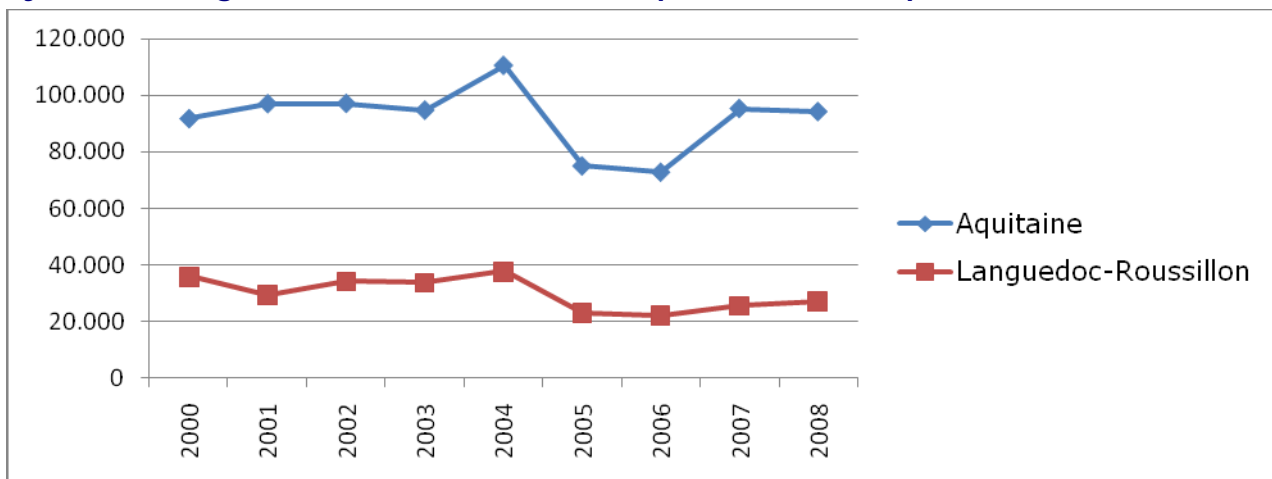
**Figure 3.3. - Spain: Evolution of Farm Net Value Added for Specialist vineyards by selected region - data deflated\*\* and expressed in 2005 prices**



\*\*Implicit Price Deflator, by Expenditure, Measurement, Country and Year

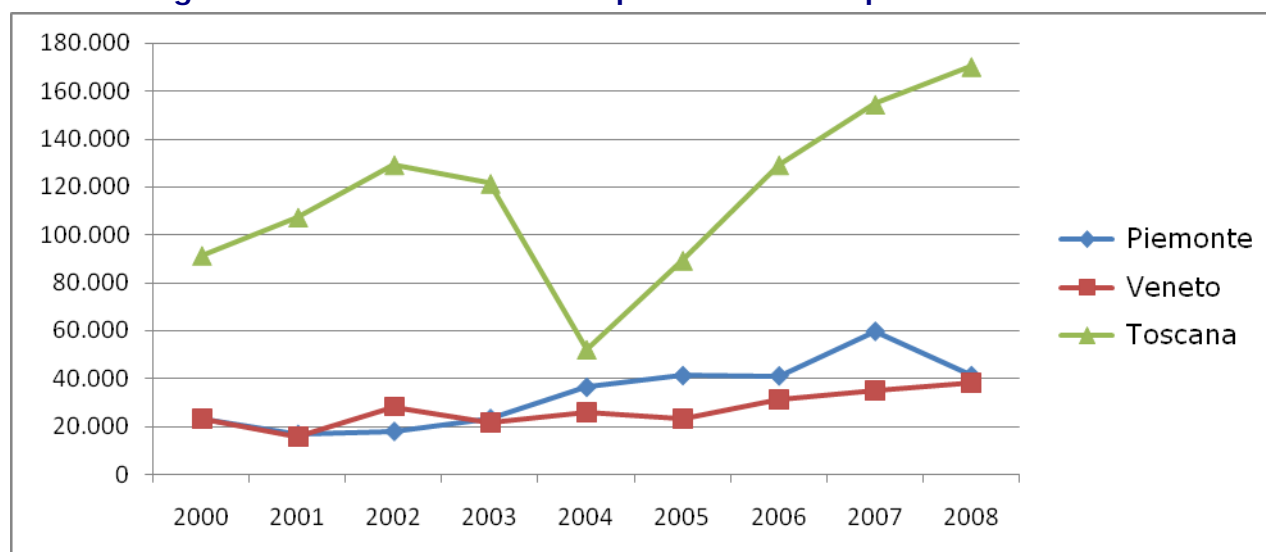
Source: EU-FADN - DG AGRI and UNECE Statistical Division Database.

**Figure 3.4. - France: Evolution of Farm Net Value Added for Specialist vineyards by selected region - data deflated\*\* and expressed in 2005 prices**



\*\*Implicit Price Deflator, by Expenditure, Measurement, Country and Year

Source: EU-FADN - DG AGRI and UNECE Statistical Division Database.

**Figure 3.5. - Italy: Evolution of Farm Net Value Added for Specialist vineyards by selected region - data deflated\*\* and expressed in 2005 prices**

\*\*Implicit Price Deflator, by Expenditure, Measurement, Country and Year

Source: EU-FADN - DG AGRI and UNECE Statistical Division Database.

Income evolution shows an increase in 2008 compared to 2000 at both the national and regional level, with the exception of Languedoc-Roussillon. The regions of Veneto, Bayern and Castilla-La Mancha show the most stable positive trend.

**Table 3.3. - Particular type of farming: shares of each enterprise in total output by selected region (period 2006–2008)**

Region	Type of farming	Enterprise output as % of total output								Total
		Cereals	Other field crops	Fruits	Wine and grapes	Olive and olive oil	Vegetables and flowers	Livestock	Other	
Rheinland-Pfalz	Quality wine	1.5	0.9	0.5	90.6	0.0	0.0	0.0	6.4	100.0
	Comparable TF	23.4	21.2	0.1	48.6	0.0	0.0	0.0	6.7	100.0
Languedoc-Roussillon	Quality wine	0.1	0.0	0.4	95.0	0.0	0.0	0.0	4.5	100.0
	Wine other than quality	1.6	0.5	0.2	92.0	0.0	0.7	0.0	5.0	100.0
	Quality and other wine com	0.5	0.0	1.5	94.1	0.1	0.0	0.0	3.8	100.0
	Comparable TF	26.7	14.2	1.4	45.2	0.0	3.9	0.0	8.5	100.0
La Rioja	Quality wine	4.7	1.7	1.6	88.5	0.4	0.2	0.6	2.2	100.0
	Comparable TF	16.7	31.2	0.2	51.1	0.0	0.0	0.0	0.9	100.0
Castilla-La Mancha	Quality wine	8.1	0.4	0.4	87.9	1.0	0.2	0.0	2.1	100.0
	Wine other than quality	7.7	0.1	0.0	83.1	8.7	0.2	0.0	0.1	100.0
	Comparable TF	41.6	1.4	0.1	49.4	6.9	0.5	0.0	0.0	100.0
Piemonte	Quality wine	1.1	0.1	1.3	95.3	0.0	0.1	0.8	1.4	100.0
	Comparable TF	20.5	3.8	1.4	56.0	0.0	3.6	1.4	13.4	100.0
Veneto	Quality wine	1.4	0.0	0.9	95.8	0.4	0.1	0.3	1.0	100.0
	Wine other than quality	1.1	0.6	0.1	93.2	0.0	0.1	0.9	4.0	100.0
	Quality and other wine com	0.8	0.0	0.0	97.8	0.0	0.0	0.2	1.2	100.0
	Comparable TF	27.4	10.1	0.0	57.0	0.0	0.2	1.2	4.0	100.0
Toscana	Quality wine	0.4	0.1	0.0	89.2	2.0	0.0	0.0	8.4	100.0
	Comparable TF	6.6	0.6	0.0	76.1	1.6	0.3	0.0	14.7	100.0
Hungary	Quality wine	1.3	0.6	0.0	87.2	0.0	0.0	0.6	10.2	100.0
	Wine other than quality	0.4	0.0	0.8	95.0	0.0	0.0	0.1	3.8	100.0
	Quality and other wine com	0.6	0.0	0.5	94.4	0.0	0.0	0.0	4.5	100.0
	Comparable TF	33.2	10.5	0.4	48.2	0.0	0.0	3.3	4.4	100.0

Source: EU-FADN - DG AGRI.

The percent output from wine and grapes for wine specialised holdings is on average larger than 80% of the total output. In the comparable TF, the percent of total output derived

from wine and grapes varies from 45 to 57%; however, in Tuscany the share increases to 76%.

**Table 3.4. - Income indicators by selected region (average, 2006–2008)**

		FNVA	FNVA/UAA	FNVA/AWU
Piemonte	Quality wine	62,936	6,464	36,967
	Comparable TF	19,264	1,072	16,922
Toscana	Quality wine	356,494	6,784	46,192
	Comparable TF	246,228	2,513	48,828
Veneto	Quality wine	75,078	4,678	29,630
	Comparable TF	20,151	1,248	15,229
	Wine other than quality	58,635	4,446	30,798
	Comparable TF	20,151	1,248	15,229
	Quality and other wine combined	26,383	3,350	13,392
Rheinland-Pfalz	Quality wine	79,770	5,439	27,839
	Comparable TF	86,623	1,254	33,407
Languedoc-Roussillon	Quality wine	38,984	1,348	16,886
	Comparable TF	54,003	633	23,015
	Wine other than quality	36,910	875	14,213
	Comparable TF	54,003	633	23,015
	Quality and other wine combined	62,499	1,204	17,570
La Rioja	Quality wine	50,461	2,539	31,712
	Comparable TF	35,152	1,381	27,169
Castilla-La Mancha	Quality wine	29,515	813	18,272
	Comparable TF	39,789	532	22,573
	Wine other than quality	46,774	972	22,233
	Comparable TF	39,789	532	22,573
Hungary	Quality wine	59,435	2,371	13,159
	Comparable TF	17,114	486	10,651
	Wine other than quality	25,539	2,273	10,854
	Comparable TF	17,114	486	10,651
	Quality and other wine combined	62,629	2,268	13,707
	Comparable TF	17,114	486	10,651

Source: EU-FADN - DG AGRI.

In the eight regions with sufficient enough observations that allows us to conduct the analysis at the Particular type of farming level, Quality wine specialised farms always have average Total output, FNVA higher than the comparable TF with the exception of Castilla - La Mancha and Rheinland-Pfalz, where the difference in terms of profitability has to be red along with the differences in capital endowment (see also Tables in Annex III.2).

Moreover, in Castilla - La Mancha and Rheinland-Pfalz the comparison between average FNVA is influenced by the absence of small size farms for comparable TF ( $\leq$  50 hectares in case of Rheinland-Pfalz and  $\leq$  25 hectares in Castilla - La Mancha).

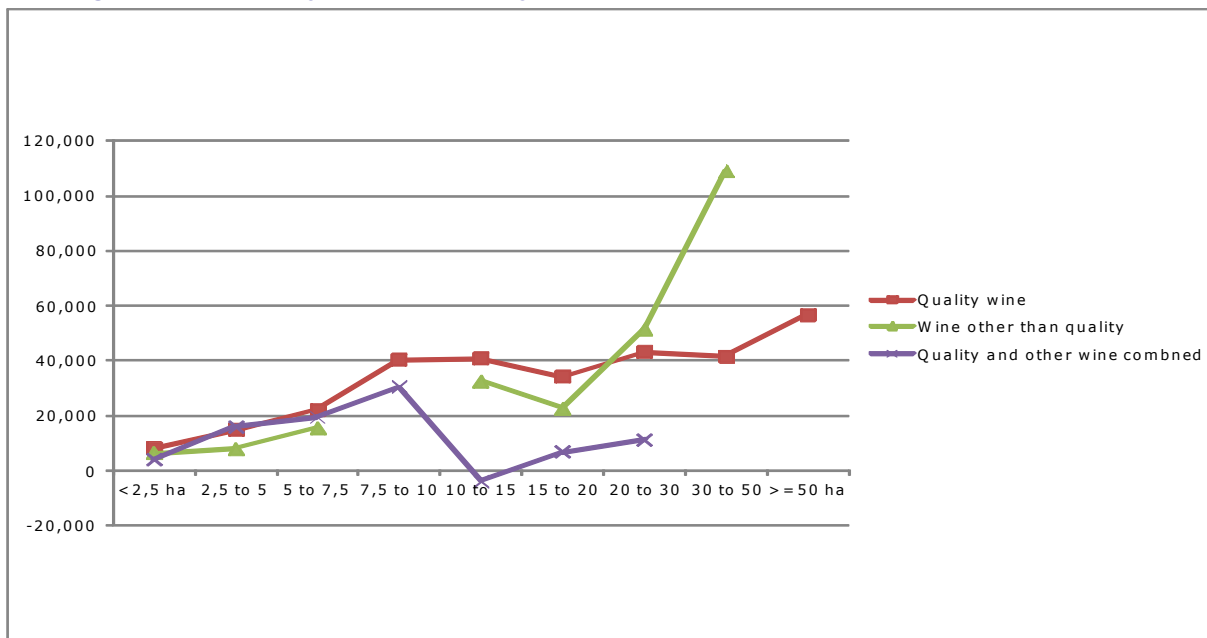
When profitability comparison between wine TFs and comparable TF is made by surface unit, wine growing producers always achieve higher levels without distinction by region, while when income comparison is made by work unit (paid and unpaid) there are cases in which comparable TF shows higher performance (Rheinland-Pfalz, Languedoc-Roussillon, Toscana, Castilla - La Mancha (only in the case of quality wine) and Veneto (not in case of Quality and other wine combined)). Moreover, in the cases in which the profitability per



AWU is higher, these best results are relatively lower than their absolute average farm performance.

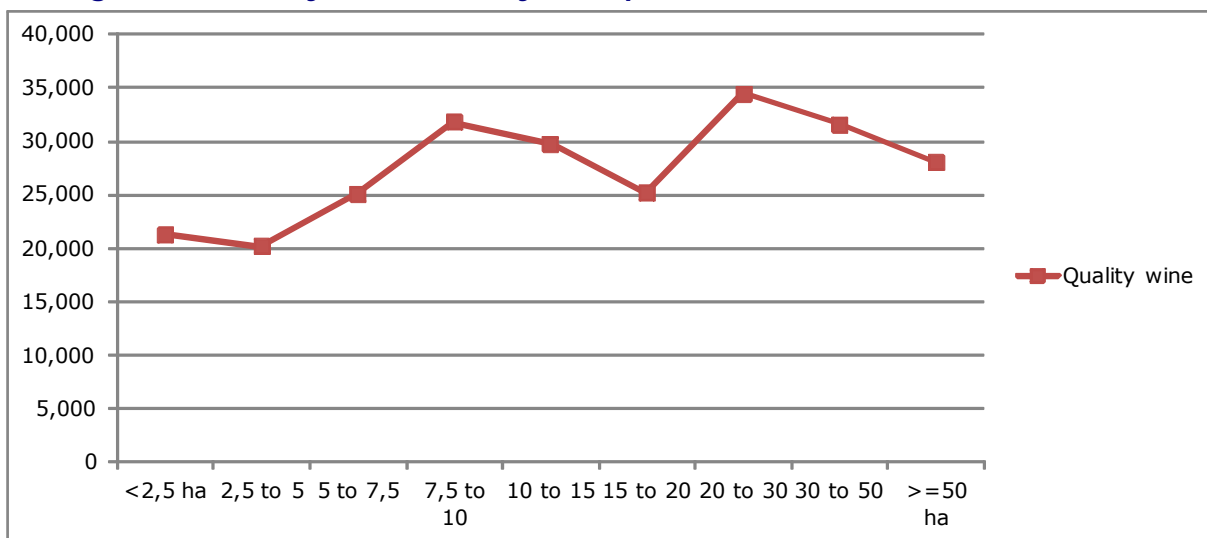
Figure 3.6 to 3.10 show income by work unit increases as the surfaces grows in every region for quality wine.

**Figure 3.6. - Italy (Veneto, Toscana, Piemonte): Farm net value added per average work unit by class of vineyards (period 2006–2008)**



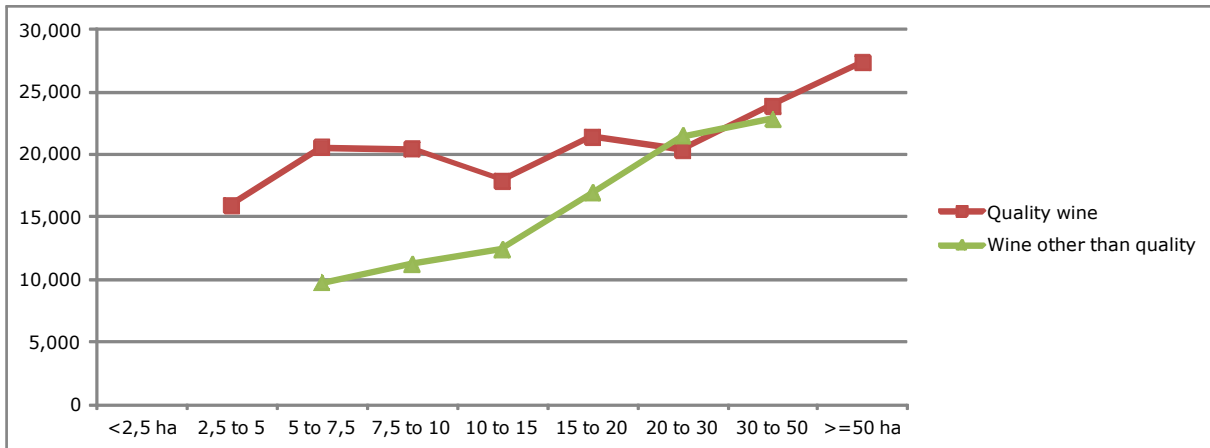
Source: EU-FADN - DG AGRI.

**Figure 3.7. - Germany (Bayern and Rheinland-Pfalz): Farm net value added per average work unit by class of vineyards (period 2006–2008)**



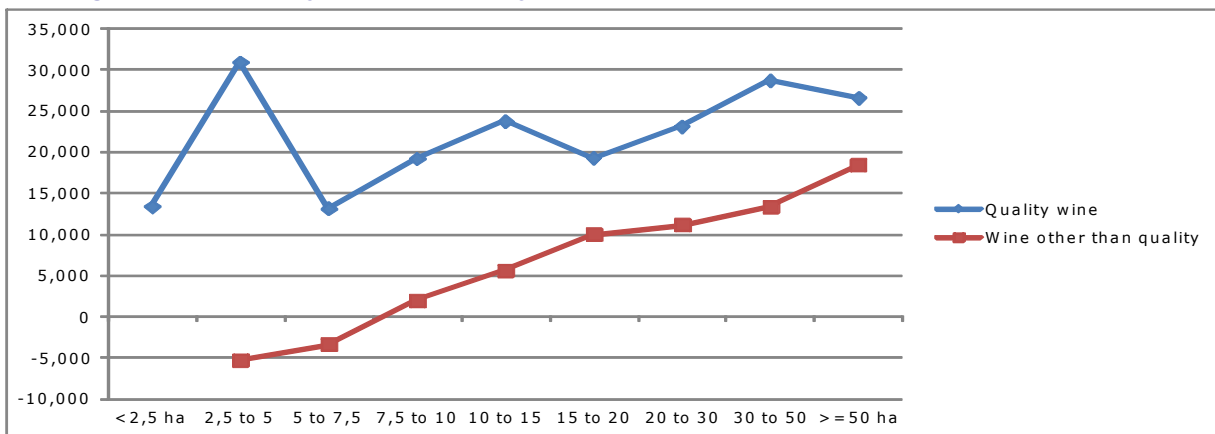
Source: EU-FADN - DG AGRI.

**Figure 3.8. - Spain (La Rioja- Castilla La Mancha): Farm net value added per average work unit by class of vineyards (period 2006–2009)**



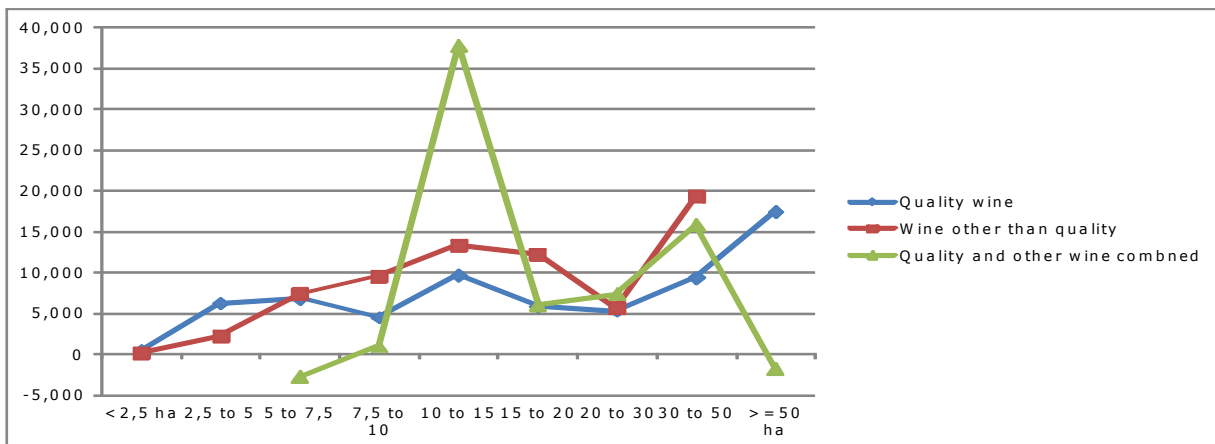
Source: EU-FADN - DG AGRI.

**Figure 3.9. - (Aquitaine and Languedoc-Roussillon): Farm net value added per average work unit by class of vineyards (period 2006–2009)**



Source: EU-FADN - DG AGRI.

**Figure 3.10. - Hungary: Farm net value added per average work unit by class of vineyards (period 2006–2009)**



Source: EU-FADN - DG AGRI.

### 3.2.2. The Analysis Data Model

Modelling in the agricultural sector has been used to simulate a priori the impact of policy or market changes on optimal crop allocation area, input use as well as farm profitability. These effects can be better investigated when both outputs and inputs are disaggregated. A nonlinear model with a constant elasticity of substitution (CES) production function and a quadratic cost function has been calibrated (Annex III.3). In particular, data from a linear model and additional values of elasticity of substitution have been used to set a calibrated model which satisfies microeconomics conditions. The main advantage of this approach is a more flexible specification than linear or quadratic programming models where parameters in the model are based on observed farmer behaviour subject to resource constraint and policy constraints. In fact, the calibration process used in this model is able to calibrate a non-linear CES production function model using a minimum data set that usually restricts the modeller to a linear program (Howitt, 1995a).

Positive mathematical programming (PMP) (Howitt, 1995a, 1995b; Paris and Arfini, 1998) is a methodology where the optimal solution can be seen as a boundary point, which is a combination of binding constraints where first order conditions are implemented. In particular, a PMP model uses the farmer's crop allocation in the base year to generate a self-calibrating model of agricultural production and resource use consistent with microeconomics theory that includes all information about the farmer's behaviour such as land quality, crop contracts and quotas, breeding stock, perennial crops, and other constraints (Bauer and Kasnacoglu, 1990; Howitt, 1995b). In other words, a PMP approach automatically calibrates models using a minimal data set and without including many constraints. The resulting model is more flexible in its responses to policy changes, and priors on yield variation or supply can be specified.

### 3.2.3. Data and calibrated parameters

Data used in this analysis comes from the FADN database. Data are collected in five European countries and 16 FADN regions. Hungarian regions have been rearranged into 2 regions according to the suitability of land to wine production. Data have been processed by following three types of farming, cereals, wine and mixed crops. Table 3.5 reports the sample size, the mean UAA and vineyard area as well as the distribution of economic size for specialized wine farms. The variability by region is significant for both area and economic size.

The model includes 4 outputs: cereals, other field crops, vineyards and other permanent crops, and 3 costs: fertilizers, pesticides and capital. The latter includes other specific costs. In wine specialized farms capital also includes wages and a share of planting costs<sup>39</sup>. The calibration process is done on land only while constraints about capital are not binding in the calibrated model.

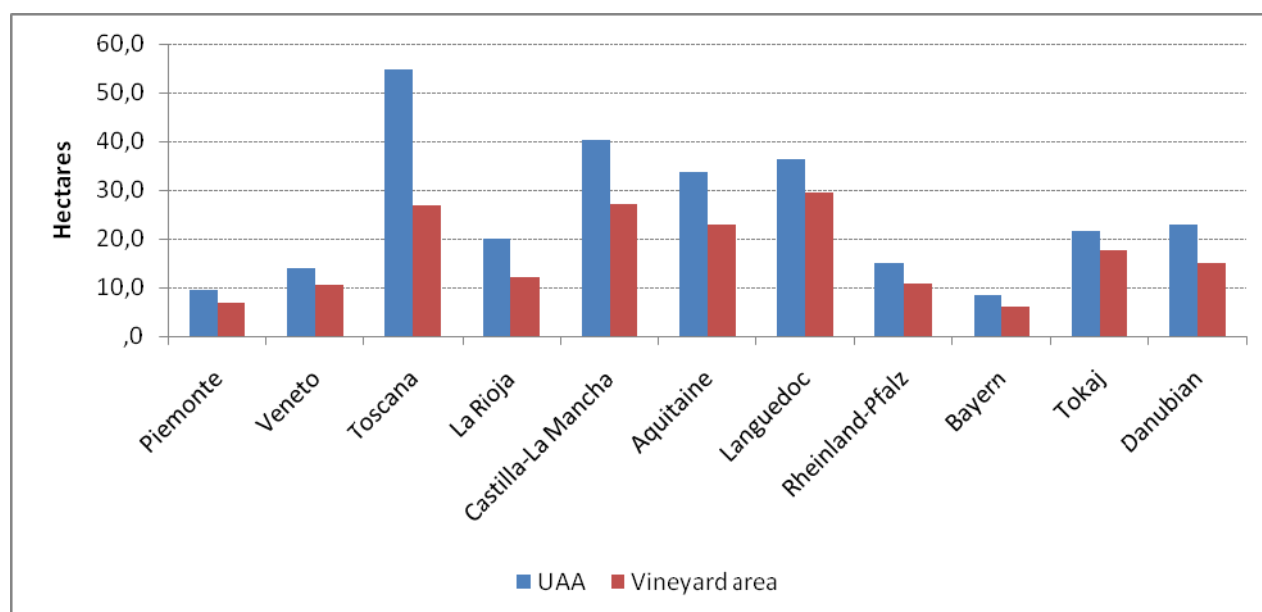
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<sup>39</sup> Actually, planting costs have been found in the literature (Galletto, Scaggiante, 2004) or estimated through direct interview. Conservatively, a share of planting costs are included as costs proportionately to the economic length of vineyard.

**Table 3.5. - Sample of farms by region (specialised wine farms only)**

		Farms (n.) (n.)	UAA (he)	Vineyard (he)	ESU class (%)			
					< 10	10 - 20	20 - 60	> 60
Italy	Piemonte	231	9.6	6.9	16.5	37.7	34.2	11.7
	Veneto	148	13.9	10.4	23.6	38.5	23.0	14.9
	Toscana	163	54.7	26.8	8.0	16.6	31.9	43.6
Spain	La Rioja	134	19.9	12.1	.0	26.1	60.4	13.4
	Castilla-La Mancha	321	40.1	27.2	4.4	45.5	45.5	4.7
France	Bordeaux	213	33.8	22.8	.0	.5	5.2	94.4
	Languedoc	250	36.4	29.6	.0	7.2	41.6	51.2
Germany	Rheinland-Pfalz	369	15.1	10.9	.0	12.5	36.6	50.9
	Bayern	63	8.5	6.1	.0	20.6	63.5	15.9
Hungary	Tokaj	24	21.7	17.7	20.8	50.0	20.8	8.3
	Danubian	79	22.8	14.9	38.0	38.0	17.7	6.3

Source: Our processing of EU-FADN - DG AGRI.

**Figure 3.11. - Mean UAA and vineyard area of farms by region (specialised wine farms only)**

Source: Our processing of EU-FADN - DG AGRI.

### 3.2.4. Assumptions about regional PMP model

The regional PMP model allows the evaluation of the changes in optimal crop allocation while measuring changes about other input and gross margin.

The PMP model assumes vineyards and permanent crops as annual ones, i.e., changes in crop allocation should be considered as a comparison between two scenarios: a) the status-quo scenario which corresponds to the calibrated model and b) a policy scenario, where changes about policies or market arrangements have been tested. No assumptions about time lag between these two scenarios have been made, i.e., the policy scenario is just a

tool to measure what happens if prices or costs or both of them are changed but we cannot forecast when it may happen.

The introduction inside the model of vineyards as annual crops does not allow to test endogenously the issues related to risk and financial constraints that affect the decision concerning the plantation of multiannual crops. This simplification determines an overestimation of the increase of the area under vine in the circumstances favourable to an expansion of grape production which has to be taken into account in the results evaluation.

The hypotheses introduced in the policy scenarios are related to wine prices and wine costs. The price scenario evaluates the change to gross margin and crop optimal allocation when wine prices are increased by 5, 10 and 15%. The cost scenario estimates the gross margin and crop allocation changes when wine costs are reduced by 5 and 10%.

Each policy scenario is evaluated by assuming that other conditions do not change (*ceteris paribus*).

### 3.2.5. Simulation results

First, changes in wine price have been simulated (Table 3.6). The change in gross margin is significant in all EU regions except Hungarian ones. In the latter, the high average UAA size associated with a high share of annual crops with respect to vineyard and lower wine output values have probably softened the effect of wine price change. Conversely, in France the effect of wine price change is amplified by gross margin according to the high output importance of vineyard with respect to other crops.

**Table 3.6. - Variation in gross margin according to wine price change (%)**

	Italy	Spain	France	Germany	Hungary
<b>Wine price = +5%</b>	5.472	5.179	7.708	3.979	0.294
<b>Wine price = +10%</b>	11.161	10.672	16.137	8.274	0.669
<b>Wine price = +15%</b>	16.986	16.415	25.198	12.814	1.069

Source: Our processing of EU-FADN - DG AGRI.

The effect of wine price change on optimal crop allocation is also significant showing an increase of vineyard area in all regions (Tables 3.7 to 3.9).

**Table 3.7. - Change in crop allocation (wine price: +5%) (%)**

	Cereals	Other field crops	Vineyard	Permanent Crops
Piemonte	0.00	0.00	3.56	-6.10
Veneto	0.00	-3.43	5.31	-0.04
Toscana	-0.19	-1.32	2.29	-0.74
La Rioja	-3.40	-0.01	4.94	-0.01
Castilla-La Mancha	-2.36	0.00	4.10	0.00
Aquitaine	0.00	0.00	3.99	-12.45
Languedoc-Roussillon	0.00	-7.79	8.35	-0.01
Rheinland-Pfalz	0.00	0.01	4.18	-16.31
Bayern	0.00	0.00	4.04	-1.82
Tokaj	0.00	0.00	5.86	-0.47
Danubian	0.00	5.94	5.94	-0.97

Source: Our processing of EU-FADN - DG AGRI.

Actually, the increase in vineyard area shown is higher in regions where production costs are lower, Veneto, Languedoc, Castilla-La Mancha or Hungary for instance, or in regions where wine shows a high output, Aquitaine or Rheinland-Pfalz. The high change in crop allocation recorded for some crops and regions is a consequence of low starting crop area.

**Table 3.8. - Change in crop allocation (wine price: +10%) (%)**

	Cereals	Other field crops	Vineyard	Permanent crops
Piemonte	0.00	0.00	7.17	-10.90
Veneto	0.00	-6.44	10.75	-0.04
Toscana	-0.38	-1.96	4.42	-1.55
La Rioja	-6.89	-0.01	9.91	-0.01
Castilla-La Mancha	-4.70	0.00	8.21	0.00
Aquitaine	0.00	0.00	8.04	-24.92
Languedoc-Roussillon	0.00	-27.29	17.00	-0.01
Rheinland-Pfalz	0.00	0.01	8.43	-32.87
Bayern	0.00	0.00	8.16	-3.66
Tokaj	0.00	0.00	11.79	-0.91
Danubian	0.00	0.00	11.93	-1.99

Source: Our processing of EU-FADN - DG AGRI.

**Table 3.9. - Change in crop allocation (wine price: +15%) (%)**

	Cereals	Other field crops	Vineyard	Permanent crops
Piemonte	0.00	0.00	10.81	-15.75
Veneto	0.00	-9.51	16.32	-0.04
Toscana	-0.58	-2.57	6.52	-2.35
La Rioja	-10.41	-0.01	14.90	-0.01
Castilla-La Mancha	-7.05	0.00	12.34	0.00
Aquitaine	0.00	0.00	12.17	-37.60
Languedoc-Roussillon	-14.45	-32.50	23.88	-2.52
Rheinland-Pfalz	0.01	0.01	12.76	-49.72
Bayern	0.00	0.00	12.33	-5.53
Tokaj	0.01	0.00	17.77	-1.40
Danubian	0.00	0.00	17.98	-2.99

Source: Our processing of EU-FADN - DG AGRI.

Changes in wine costs are then simulated. Conversely to wine price changes, the impact of cost reduction is lower in magnitude (Table 3.10). In other words, farmers seem to be less sensitive to cost changes and more reactive to price changes.

**Table 3.10. - Variation in gross margin according to wine cost price change (%)**

	Italy	Spain	France	Germany	Hungary
<b>Wine costs = -5%</b>	1.943	1.142	2.454	1.151	0.103
<b>Wine costs = -10%</b>	3.992	2.379	5.208	2.461	0.271

Source: Our processing of EU-FADN - DG AGRI.

This effect is shown as both gross margin and vineyard area change. In the case of gross margin, even if wine costs are reduced by 10%, the increase of gross margin reaches +5% in France only, while in other EU regions it is about 2-3%.

Crop allocation and vineyard area show smaller changes than the previous wine price scenario (Table 3.11 and Table 3.12). Even when the cost reduction is 10%, the increase in vineyard area reaches values around 4-5%. The Languedoc shows higher values since wine gross margin is stronger with respect to other crops ones.

**Table 3.11. - Change in crop allocation (wine price: -5%) (%)**

	Cereals	Other field crops	Vineyard	Permanent crops
Piemonte	0.00	0.00	0.73	-2.33
Veneto	0.00	-1.54	1.89	-0.05
Toscana	-0.13	0.63	0.20	-0.52
La Rioja	-0.79	-0.01	1.24	-0.01
Castilla-La Mancha	-0.55	0.00	0.92	0.00
Aquitaine	0.00	0.00	1.14	-3.69
Languedoc-Roussillon	0.00	-19.46	3.40	-0.01
Rheinland-Pfalz	0.00	0.01	1.29	-5.07
Bayern	0.00	0.00	1.21	-0.55
Tokaj	0.00	0.00	2.88	-0.30
Danubian	0.00	0.00	2.54	-0.43

Source: Our processing of EU-FADN - DG AGRI.

**Table 3.12. - Change in crop allocation (wine price: -10%) (%)**

	Cereals	Other field crops	Vineyard	Permanent crops
Piemonte	0.00	0.00	1.50	-3.35
Veneto	0.00	-2.65	3.89	-0.04
Toscana	-0.27	1.86	0.27	-1.09
La Rioja	-1.68	-0.01	2.49	-0.01
Castilla-La Mancha	-1.08	0.00	1.85	0.00
Aquitaine	0.00	0.00	2.34	-7.37
Languedoc-Roussillon	0.00	-40.27	7.04	-0.01
Rheinland-Pfalz	0.00	0.01	2.66	-10.38
Bayern	0.00	0.00	2.49	-1.12
Tokaj	0.00	0.00	5.82	-0.54
Danubian	0.00	0.00	5.13	-0.86

Source: Our processing of EU-FADN - DG AGRI.

### 3.3. The evolution of production potential in Third Countries

#### 3.3.1. Argentina

Government intervention aimed at influencing the evolution of areas under vines started in 1880 with the first promotion of vineyard expansion, achieved by eliminating taxes on new plantings. Due to this, up to 1930 there was continuous if disorderly growth of production

potential, which consolidated a model favouring the production of medium and low quality wines exclusively for the domestic market. These were years in which precedence was given to quantity rather than quality in the wines produced. Growth in the wine grape growing sector is well expressed through extension of the area under vines; it went from around 5,000 ha in 1890 to 45,000 in 1910, to 85,000 in 1920 and to 141,000 in 1930 (AVA, 1985). The development model created in this period was maintained until 1990, when it became clear it was not sustainable.

The first oversupply problem occurred in 1897. It was remedied by the first rules designed to prohibit the artificial production of wine and the creation of an ad hoc body to control it. However, given the exponential growth of supply, oversupply continued to occur with almost cyclical regularity, to which the government tried to respond with legislative measures of control. In particular Law 4463/1904 attempted to control wine production, but successive oversupply made it necessary to intervene more strongly, and Laws 12137 and 12355 were passed. A regulatory body was then created with the power to act directly on the market, controlling plantings and also wine production. The measures taken were drastic and included obligatory removal of vineyards and the elimination of wine (which was poured into canals); for the first time the State intervened directly by purchasing grapes and wine and then eliminating them.

Law 16833 was passed in 1966 for promoting arid zones, and provided for tax relief for agricultural produce and animal breeding in arid zones. This led to 50,000 hectares of vineyards planted with high yield varieties in just six years, pursuant to the production model of the time (Annex III.4.1). The supply of grapes and wine produced due to this expansion created an almost permanent imbalance on the market, partly due to a decline in demand (Annex III.4.1), which began in the 70s. The structural imbalance on the market caused by oversupply of grapes and low quality wine changed from cyclical to permanent (Annex III.4.1).

The final blow to the trade was provided by financial speculation in 1982 which caused a sharp drop in the price of wine and set off a chain of bankruptcies for wineries, wine grape growers and suppliers. At the end of that year, Law 22667 was passed to allow the re-conversion of viticulture. This law acknowledged the oversupply crisis and aimed at diversifying the use of grapes, promoting exports and improving and diversifying varieties. In addition the State, through the INV, decided how much to produce, introducing objective methods for determining national and regional production and that of individual farmers through a defined system of the planned economy type.

In practice a domestic market was created by harvesting and vinification rights which were sold and transferred by those who had oversupply or decided to abandon wine grape growing to those who had more production than rights. However, the decision to stop the sale of wine had the side effect of creating large stocks for which it was necessary to create storage depots.

In spite of the new measures, the situation did not improve and the State was obliged to create new stronger laws the result of which was to remove thousands of hectares and allow harvesting of a restricted part of production. In addition, a surtax was applied to wine in order to co-finance the direct aid measures, i.e. the purchase and destruction of surplus.

However, the need to regulate the trade led the governments of Mendoza and San Juan, towards the end of 1994, to create a special set of rules for their provinces, which together account for 95% of national production. The primary aim of this treaty, also known as the "Mendoza-San Juan Agreement", was diversification of the wine grape growing system. Some of the more important measures include obligation to dedicate a quantity of grapes



to the production of must (Annex III.4.1), which, differently from distillation does not imply capital destruction, and at the same time makes it possible to regulate supply.

Then a Wine Grape Growers' Fund was created to reinforce promotion activities for the trade and exports (Annex III.4.1), financed by a tax of 0.01 \$ per kg of grapes vinified. This tax is not applied to those who make must from at least 20% of the grapes received, and exports of wine can be deducted from the obligation to transform grapes into must as they work on the market in the same way and lessen domestic supply.

The first years of the Wine Grape Growers' Fund and the policy of diversifying into must were strongly contested, but slowly the scheme became consolidated and provided a good base for the construction of corporate capital in the wine grape growing trade.

Today there are increasingly fewer areas under vines that produce low quality grapes for wine, whereas there is an increase in the number of valuable varieties such as Malbec, Cabernet, etc.

The obligation to set aside some of the grapes for must has proved to be an effective measure, since it involves only low quality grapes, that is to say those that encounter the most difficulties on the market. On the contrary, good quality production is not affected and as the size of intervention can be chosen each year the trade has good flexibility and adapts well to the dynamics also of short-term demand.

### **3.3.2. New Zealand**

New Zealand is a new world producer that has a strong technical base with regard to both vine cultivation and wine-making practices. This situation is due mainly to synergy between the public and private sectors, which have worked together on marketing, research and sustainability in order to improve the entire trade.

The result is a wine-making industry that nowadays produces a very high percentage of quality wines, making New Zealand the leader in the Premium wine range.

In a highly positive economic framework, the area under vines has grown over the last 10 years by 164%, and by 32% between 2007 and 2010. On the other hand production has grown at an even greater pace, 216% between 2000 and 2010 and at 59% in the past three years (Annex III.4.2). However, the considerable growth in wine production was sustained by exports, which almost tripled in five years, whereas imports dropped slightly (Annex III.4.2). Today around four fifths of the wine produced is exported to other markets, mainly Australia, Great Britain and the United States.

Wine consumption in New Zealand showed a continuous upward trend up to 2009 (Annex III.4.2), whereas in the past year there was a small downward trend. It is in any case an expanding market, where foreign wines have always accounted for 35 to 55% of sales, in spite of the fact that national production exceeds needs.

The trade's good health is also shown by the number of wine grape growing businesses, which went from 358 to 672 over the past 10 years, with a constant upward trend. The same cannot be said of the average price of grapes, which straddled 2 NZ\$ per kilo throughout the five year period 2003–2008, but since 2009 has undergone a sharp reduction, reaching less than 1.3 dollars in 2010. New Zealand Wine Growers attribute this to oversupply, which has also led to slower expansion of the area under vines. So even in a country like New Zealand that has excellent indicators for the wine grape growing trade and features expanding demand and constant growth of exports, there are problems linked to the profitability of wine grape growing.

The supply balance sheet is further proof of the apparent good health of the trade: according to data published by New Zealand Wine Growers, over the past ten years there has often been a balance of zero, as there was a surplus in the years 2006, 2007, 2008 and 2009, whereas in 2003 and especially in 2010 there was a deficit.

However, even if oversupply may weigh relatively on the supply balance sheet in absolute terms, market dynamics do not appear to be capable of inverting the trend towards lower prices. This is confirmed by the opinion of the authority competent for wine grape growing, which forecasts that production will continue to expand, causing a further price reduction.

According to Anderson (2000), the main index of oversupply for a given country is the percentage of exports of bulk wine over the total exported. Over the past three years in New Zealand there has been a significant increase in the export of bulk wine, which went from 8% in 2008 to 22% in 2009, up to 28% in 2010 (Annex III.4.2). As stated in a recent Rabobank report, in the event of oversupply, growth in the sales of bulk wine may have a positive effect on the trade, if limited to a short period (it frees space in the wine cellar, gives businesses an important financial income and can open new sales channels). On the other hand, sustaining it over the medium-long term could lead to negative effects by pushing down the prices of grapes and wine, which would also damage the prestige of New Zealand wine.

Notwithstanding we are speaking of a market in the throes of growth, problems are beginning to appear linked to the prices of wine and the profitability of wine grape growing, as has already occurred for the traditional producer countries, but also for some in the new world, as with Argentina, for example.

### **3.3.3. United States**

According to FAO and OIV data, the United States is the fourth biggest producer of wine in the world, behind Italy, France and Spain. In spite of this, it is a country in which the gap between domestic supply and demand has widened over recent years, up to today's 6–7 million hectolitres (Annex III.4.3).

Therefore, we are referring to a relatively young and greatly expanding market on which wine consumption in the past ten years has experienced two distinct phases: between 2000 and 2007 there was continuous growth from 21.2 to 28.2 million hectolitres, corresponding to an average increase of around 4 percentage points per year. However, since 2008 the trend has inverted, with a slow but progressive decline to 27.1 million hectolitres in 2010. In any case such value comes very close to that of France and exceeds that of Italy, making the United States the second biggest market for wine consumption.

Notwithstanding a drop in consumption, the value of sales on the domestic market has remained quite constant, levelling out at 30 billion dollars a year since 2007, after important growth that took it to almost triple in just 15 years (Annex III.4.3).

In this context, the area under vines experienced a period of expansion lasting up to the first years of the new millennium, after which there was a very slight contraction and then it consolidated at a value close to 400,000 hectares (Annex III.4.3). The fact that supply stopped rising even though it did not meet national needs can be explained by several factors, but the most important one is probably the average price paid for grapes. According to the data from the California Department of Food and Agriculture, the average price of grapes tended to increase continuously and to an important degree over the years up to 2001, and after that prices became volatile but were almost always lower (Annex III.4.3).

One element that may have destabilized the domestic market is bulk wine imports, which more than quadruplicated between 2005 and 2010, whereas if we consider the first ten years of the 21st century the increase was over 10 times (Annex III.4.3). In addition, the average price of imported bulk wine dropped over the period in question, from 1.4 dollars per litre to below one dollar, reaching its lowest in 2009 with 0.75 dollars per litre. This had negative effects on the profitability of the wine grape growing trade, triggering the situation described above of volatile prices and stopping development of areas under vines. We are therefore looking at another case of profitability of the wine grape growing trade being questioned, even though in a context of market expansion with domestic demand that increasingly exceeds supply year after year.

### 3.3.4. Australia

Throughout its history the Australian vine growing sector has undergone cyclical crises of over-supply, linked to (Anderson *et al.*, 1998; Anderson, 2011; AWBC & WFA, 2000-2010): i) failure to regulate supply; ii) failure to provide legislation concerning the aptitude and use of rules for classifying different varieties of wine grapes; iii) the application, starting in the nineties, of the government plan *Managed Investment Scheme (M.I.S.)*, an instrumental measure for Strategy 2025 (WFA, 1995; WFA, 2008).

In Australia, the planting of a vineyard is not subject to administrative authorization. For this reason vine growing is unconditioned and not subject to control of the production potential by government bodies. Recently the Australian authorities have begun restructuring a trade which in past years, especially the three-year period 2009-2011, was in a consistently critical situation regarding oversupply. Such initiative, known as *Wine Restructuring Action Agenda (WRAA)*<sup>40</sup>, involves, among other things, the aim of adjusting supply by reducing the area under vines (Annex III.4.4)<sup>41</sup>.

Moreover, due to the fact that there is no vine growing zonation policy, Australian producers have been able to plant varieties in areas suitable for different vines<sup>42</sup>, with different climates and ecosystems, soil composition and management. In particular, the challenges linked to climate concern mainly a scarcity of water which has had an impact on production costs, supply trends and quality parameters. In this respect, the elements that distinguished the commercial strength of Australian wine include particularly international consumers' interest in attractive varietal wines *made in Australia* (Rabobank, 2007). In this regard, the recent structural excesses of grapes and wine on the one hand are eroding the profitability of vine growers (Annex III.4.4) and on the other are causing devaluation of the Australia brand<sup>43</sup>. In addition, consumption of varietal wines is affected by changes in what is in vogue. For this reason, given the inflexible nature of supply, if consumers shift their preferences to other varieties, the market finds itself periodically facing oversupply, partly

<sup>40</sup> Winemakers' Federation of Australia, Wine Grape Growers' Australia, the Australian Wine and Brandy Corporation and the Grape and Wine Research and Development Corporation (2009). *Wine industry must confront the reality of oversupply A statement to the wine industry*.

Australian Bureau of Statistics (ABS) data suggests a net reduction in vineyard area of 6600 hectares (8000 removed and 1400 planted) up until March 2010, with an additional 13,000 hectares not harvested during vintage 2010. [Removals may be understated as growers who have exited completely are unlikely to have responded to the survey]. These net removals represent a reduction of 4.3% of national vineyard area. However, if the hectares not harvested are permanently withdrawn the combined reduction is 13%. This compares with the 20% identified as the minimum necessary in the first WRAA statement.

<sup>41</sup> Despite seven years of oversupply, only 3% of the total South Australia vine area has been removed in the three years to July 2011 (Wine Australia, Winefacts dashboard).

<sup>42</sup> The way the Australian system of designations of origin works is that producers can use the designation Yarra Valley, for example, if – and only if – at least 85% of the grapes come from that region, but there are no other requirements governing the nature of the blend.

<sup>43</sup> Winemakers' Federation of Australia, Wine Grape Growers' Australia, the Australian Wine and Brandy Corporation and the Grape and Wine Research and Development Corporation (2010). *Wine sector must continue to focus on transition*, <http://www.wfa.org.au/>

comprising low quality varietal wines with low prices for promotion purposes (e.g. Sangiovese, etc.). Such market crises generate confusion in consumers that leads to disappointment in the product (exit from the market) (Hirschman, 1970).

With reference to the third aspect, since the eighties with the application of the *Managed Investment Scheme* the Australian government has had an important tool for encouraging the planting of areas under vine, in the form of tax deduction.

By way of example, assume that for planting a vineyard of 100 hectares, with the initial accumulation of costs totalling AUS\$ 2.500.000 (e.g. vine shoots, poles, wire, labour, etc), the farmer receives a tax deduction credit valid for the same year, of 90% of expenses (i.e., AUS\$ 2.250.000)<sup>44</sup>.

On the one hand this scheme has been an extraordinary tool for financing investors and on the other has contributed significantly to the considerable growth of Australian viticulture<sup>45</sup>. The *M.I.S.* operation has provided support for the growth and success of Australian exports on international markets (Annex III.4.4). By implementing *Strategy 2025*, the Australian government has started a period of large investments which today, with the increased exchange rate for the AUS\$, showing +50% on a two-year basis, compared to both the US\$ and the EUR and GBP (Annex III.4.4), the heightening of the effects of the global downturn and increased competition on international markets, have led to the most dramatic crisis the Australian wine market has ever known (Hackworth, 2011; Anderson *et al.*, 2011; Anderson, 2011)<sup>46</sup>.

In such a context, exports of bulk Australian wine rose from 15% in 1996–2003 to 47% in 2010–11, whereas imports increased from 3% in 2001 to 15% for the 2010–2011 vintage. Growth in exports, which went from 0.2% of production in 1980–84 to 66% in 2009, was flanked on the one hand by a peak in average prices in 2001, and on the other by their fall over the last ten years, especially the most recent period (Anderson, 2011).

Today there is a lively debate about a resolution to remove 20–30% of the area under vines in Australia (WFA, 2009; Wahlquist, 2010). Many growers with 5/6 generations of experience behind them have chosen to abandon their land and leave the market, with effects which also involve negative externality (Hackworth, 2011; Anderson *et al.*, 2011; Anderson, 2011)<sup>47</sup>. Many of these growers have declared bankruptcy. Even the big companies are affected by the downturn, including great difficulty in drawing up contracts for the sale and purchase of grapes. For this reason many vineyards are up for sale and land value has dropped sharply (Hackworth, 2011).

### 3.3.5. South Africa

In South Africa, wine grape growing has undergone deep changes since the end of last century, adapting to the model characterized by a strong orientation towards export, despite the present of pedological and climatic factors limiting the area can be planted for wine-making purposes.

As a matter of fact, even though in the last fifteen years the vine-growing area has grown by less than 30%, going from 103.000 hectares to 131.000 hectares (Annex III.4.5), a modernization process has come about in vine-growing and the oenological sector, which has increased the quality of South African wines. This change has been dictated by the will

<sup>44</sup> Ferrari P. (2011). Testimonianza personale. Enologo, Brown Brothers, Melbourne, VIC (Australia).

<sup>45</sup> *Cfr. Ibidem.*

<sup>46</sup> See footnote 36.

<sup>47</sup> The high cost of removing vines and the lack of alternative uses for vineyard land. 82% of all vineyards in South Australia are less than 25ha, significantly limiting their use for non-horticulture primary production.

to acquire a leading role on the international market, in the knowledge that, in 1996, less than 1 per thousand of the country's production was exported.

Towards the end of the Nineties the percentage of volume exported had already risen to 15%, to then place itself between 22 and 28% in the five years 2000/2004 (Annex III.4.5). But since 2005 there has been a boom in exports, with peaks of over 50% and, anyway, almost always over 40%. The growth in business is well emphasized taking as reference the period 1998-2010, when South African export has quadrupled in volume and grown by over 10 times in value.

Today South Africa is known mainly for its white wines as well as for the Pinotage, black-berried vine symbol of the Country's oenology.

The average export price of South African wines has swayed between 1.3 and 2.1 US\$ per litre remaining, anyway, almost always below the 2 US\$. Furthermore, from the data gathered it seems as though the average price has had a very strong influence on export, because in all the years when the price has been below 1.5 dollars/litre there has been a sharp rise in exported quantity while, when it has gone above 1.8 US\$, export has decreased.

Another detail to be highlighted is the concentration of South African export; the calculated Herfindhal index results are always superior to 0.15, a situation not met in any other of the main producing countries. The reason for this is that the UK has historically bought about a third of all exported wine, evidence of that bond with its colonial empire which is, even today, having a great influence.

Wine production in the last 15 years has grown by only 10%, going from 8300.000 to about 9200.000 hectoliters (Annex III.4.5). This growth has been decidedly inferior to the production potential, indicating a decrease in the average vineyards' yield, which is further evidence of the changeover and shake up which was mentioned above. The production increase has, furthermore, remained constant even though between 1998 and 2002 production had largely fallen below 8.000.000 hectolitres, reaching a low of 6.400.000 in 2001.

With regard to wine consumption, the over 4.000.000 hectolitres in 1995 have become 3.500.000 today, with the main decrease, about 500.000 hectolitres, happening between 2002 and 2003 (Annex III.4.5).

Therefore we are faced by a country which has increased lightly its oenological production, even though it finds itself in a national situation where wine consumption is decreasing. This has been possible thanks to an export increase, which today accounts for over 40% of the produce, becoming a fundamental mainstay of the wine-growing sector. This is the reason why South Africa has shown itself to be, in the last few years, very receptive to market needs, quickly adapting its supply to these. To confirm this, data published by Euromonitor show the large growth which happened in the last five years in sparkling wines (52%) and the preponderance of white wines, today much more sought after by international markets than the red ones.

### **3.4. Structural impact of the liberalisation: a qualitative analysis**

The available comprehensive analyses on the issues of planting rights offer a non uniform vision of the possible consequences of the liberalisation of planting rights.

The Study sponsored by the European Parliament<sup>48</sup> in 2006 came to the conclusion that planting vineyards is subject to forecast errors regarding the future state of the market and production fluctuations, situations which can exasperate critical times when demand lacks elasticity. Therefore, planting rights are a tool for controlling supply, and their abolition could lead to re-location of vineyards, the development of prime businesses blessed with abundant capital, and the rapid appearance of oversupply, which would raise problems in relation to Protected Denomination of Origin (PDO) Wines and other wine categories.

Against this, the survey "ex-post evaluation of the Common Market Organization for wine" (INNOVA, 2005)<sup>49</sup> emphasizes the penalization of big companies due to the current planting restrictions. The survey concludes that planting rights are not correlated to the market as they are inflexible and constitute an element that has taken the average income of wine producers to levels lower than those that could potentially be achieved. This has occurred especially for the more dynamic producers, who have seen a fall in the possibilities for extending their businesses and presence on the market. Notwithstanding, there is no proof of their influence on the market price for wine and it has been acknowledged that they help to keep the increase in surplus low, although they have not been able to eliminate structural excesses. Lastly, it is pointed out that planting rights have allowed small, traditional producers to continue working in a market which otherwise would have been dominated by big companies.

Two structural issues come out from the mentioned reports:

- the permanence of small business
- the possibility to have in the EU large companies able to compete with big companies operating in Third Countries.

The first issue is a relevant one as a considerable amount of current EU wine supply (namely most of that which is high quality) relies on land where production costs are very high in comparison with costs of both other EU wines (namely most of the table ones) and wines produced in other countries around the world.

High production costs are due mainly to high labour intensity and high capital investment per unit of land, aspects which reach a peak level in the so-called "heroic viticulture".

Most of this kind of viticulture is managed in places where vine growing encompasses a value that goes beyond the growers' incomes linked to the generation of positive externalities. In fact, of the main benefits for society as a whole which are derived from it, we can consider: landscape beauty, hydro-geological safeguarding of land, the preservation of historic sites, direct and indirect maintenance of jobs (wine tourism, local demand of inputs for the wine business, etc.) related to the local wine industry, and enhanced standards of living in rural areas. However, almost all of them depend upon the price that local producers receive for their wine: if, in the long run, they will be unable to get enough revenue to compensate their high labour and investment costs, the outcome will be a progressive abandonment.

Actually, the existing economies of scale in viticulture (see §3.2.1; Cembalo et al., 2010) largely dependent by mechanisation (Pomarici et al, 2006; Galletto e Barisan, 2007), in case of liberalisation, may determine a pressure towards the enlargement of vineyards. Such phenomenon would accentuate the split between capital intensive processes based on large vineyards which may become larger, and small labour intensive farms. In such a situation, the competitive pressure of larger farms on the smaller may in principle

<sup>48</sup> Policy Department Structural and Cohesion Policies (2006). Directorate-General for Internal Policies of the Union, IP/B/AGRI/ST/2006-22.

<sup>49</sup> See Chapter 4 'Planting rights'.



determine the marginalisation of the latter. Indeed, with the abolition of planting rights, the small labour intensive processes are exposed to the risks of shrinking.

Anyway, the intensity of such processes is not easy to foresee as it is impossible to determine unequivocally the optimal size of wine firms and vineyards, as such size depends on many factors and particularly on the demand characteristics (Pomarici et al., 2008). Moreover, considering the complexity of the wine industry and the existence of inter-industry markets, there is no direct connection between the optimal size of wine selling companies and grape producing farms (Chevet, 2006; Cafaggi e Iamiceli, 2010; Malorgio et al., 2011). Of course the risks for smaller grape growing farms increases in the case of oversupply.

Results from the FADN analysis reveal an asymmetrical response of the cultivated area of individual firms to wine market price increases versus reductions (paragraph 3.2). When wine market prices are higher, there is a proportional increase in the cultivated area of individual firms. When wine prices decrease, however, there is a reduction in cultivated area, but the reduction in cultivated area is no longer proportional to the reduction in price. It is in fact, reduced to a much lesser degree. Furthermore, it seems likely that producers who will benefit first from free expansion of vineyard acreage are those who are in a better condition to take advantage of financial availability and easy growing possibilities. They are large sized companies owning or renting land in areas where they can benefit from scale economies (mainly from vineyard mechanization, but also from wine making and marketing), aimed at competing in the global mass wine market. According to what happened in most of the new world countries, they will first of all expand the supply of table and varietal wines, but they will also increase the supply of geographical indication (GI) wines for which they can exploit easy production conditions and/or sound trademarks. The resulting decline in prices risks to hamper the economic viability of many companies, which are unable to reduce their production costs. Then, the possible decline in high cost viticulture will mainly be related to: a) the smallest units, without any kind of scale economies, b) areas with the harshest conditions, c) producers with the weakest collective trademarks, not yet well recognized by the market. In addition they have high risk aversion (Boussard et al., 2005), and for this reason the vineyard area is reduced more than necessary to reach market equilibrium.

In case of a tendency of oversupply, it is possible to envisage two ways in which high cost-high social value viticulture can be threatened: by competition within a GI (a) and by competition among GIs (b): (a) will take place between low cost and high cost producers within the same GI (more likely when the area available for GI is large); (b) will take place between high cost and low cost GIs, with the latter progressively eroding the market share of the former.

Concerning the issue of competitiveness of companies which have to compete with huge companies located in Third Countries, it is possible to use some of the same arguments used previously. The competition in the international market is mainly linked to the economies of scale in marketing, distribution networks and logistics, product range and on a flexible availability of grape and wine, which for non specialty wines are mainly purchased in the inter-industry market where cooperatives are the larger supplier. In such conditions the efficiency of wine supply is largely independent of grape production. On the contrary, a decentralised grape production system may result in a sector more flexible and efficient, better able to overcome market instabilities.

### 3.5. The consequences of the abolition of the planting rights regime under different scenarios

The preservation or the abolition of planting rights in wine grape growing regions will lead to very different future outcomes for the wine grape production which will be influenced by the future worldwide wine demand.

Depending upon the choice, four possible outcomes will be considered:

- 1) Stable demand, while keeping planting rights.
- 2) Stable demand, while removing planting rights.
- 3) Increase in demand, while keeping planting rights.
- 4) Increase in demand, while removing planting rights.

In the first outcome, any adjustment to the offer is not stopped but it is channelled toward the stability of the current industry structure.

Preservation of planting rights can lead to higher selectivity of renewed investments and in the varieties cultivated, constraints on new free plantation which could be planned to challenge the market with varietal wines.

Similarly, the dynamics of the average grapevine planting surface for individual firms should follow the current slowly increasing trend, looking for an individual vineyard size able to optimize vineyards operations (§3.4). This process should be smooth, preserving the competitiveness of small and medium sized firms, essential to the community of the viticultural sector.

Within the second scenario, in the case of temporary or local situation of wine price increase, the offer adjusts to price very slowly, even at the microeconomic level as demonstrated by Nerlove analysis avoiding an increase of production potential (see §3.1). Nevertheless the liberalisation could work as a signal encouraging new plantings, eventually destined to varietal wines, and the result of such an outcome could be a greater instability of the market given the enlargement of the community producing wine grapes. Here there could be a risk of further accentuating the dichotomy between hillside and flatland grapevine production and between large and small to medium sized firms (see §1.3).

In the third and fourth outcomes, an increase in demand would require EU countries to grow supply to at least defend market shares. Maintaining planting rights, as in scenario 3, the EU wine supply can follow demand increase up to 15%, through a full utilization of the production potential and a reasonable increase of yields. In this case a progressive increase of grape production should occur, with a reduction of production cost per unit of product. Above the threshold of 15%, a reduction of EU wine market shares would occur, associated with a relevant increase of grape and wine prices in the inter-industry markets.

Under the hypothesis of planting right liberalization (scenario 4), the EU wine supply would be free to follow the rise of demand, but with the risk of inducing of a process of enlargement of the production potential, which could end in a situation of oversupply, determined by the lagged response of area under vine to the market signals. There are several different case studies demonstrating this point, most notably that of Argentina and Australia, which demonstrate the inability of the viticultural and wine sectors to self-regulate without government intervention to guide them.

Therefore, if the world-wide wine consumption should increase and the planting rights regime would be dismantled, new vineyard plantings would help to satisfy new quotas required without in a first phase creating surpluses. However, there would be an increase in



economic risk for growers (i.e. decreased income stability) due to wine price variations, associated different growth rates for demand and supply (see §3.2).

## 4. MANAGING THE POST-2015 SCENARIO

### KEY FINDINGS

- The control of production through the planting rights scheme is considered one fundamental issue in the European policy for the wine sector.
- Current proposals for CAP reform after 2013 confirm the reduction of the set of instruments for the policy in the wine sector and will abolish the planting rights regime.
- In the liberalisation of vineyards scenario, the reinforcement and revision of current measures of support would be useful as compensation for abolishment of planting rights.
- Among these measures of support, restructuring, promotion and investments are the three which would be able to enhance the structure of the European wine industry operating along the whole supply chain.
- Also the role of POs and IBOs is to be implemented since they represent an important tool for rebalancing power relations and improving value added distribution among all actors in the supply chain.
- New instruments should be introduced regarding contractual relations among levels of the supply chain, in order to increase the bargaining power of grape and wine producers
- In the maintaining of a renewed scheme of planting rights scenario, a different mechanism of functioning should be introduced, switching from a planting rights regime addressed to limit the size of the EU vineyard, to a planting rights regime addressed to control in a dynamic way the potential.
- The structure of a renewed planting rights regime should be based on an improved market for planting rights, taking into account both technical rules for the exchange of planting rights and enlargement of boundaries for the exchange of planting rights.

### 4.1. Introduction

#### 4.1.1. The issue of "planting rights"

The control of production through the planting rights scheme is considered one fundamental issue in the European policy for the wine sector, as witnessed by the fact that the topic of maintenance/abolishment of the scheme has assumed a central role in the debate that has led up to the CMO reforms (proposal of 1994 about introduction of quotas, reform of Agenda 2000, reform of 2008, reform of CAP after 2013). Nevertheless, despite the importance of the topic, a thorough review of how to make the implementation of this measure more efficient has never been carried out. All this probably happened just because the planting right regime has always been "temporary".

Now, the planned abolishment of the planting rights represents one of the most controversial points of the CMO for the wine sector, as witnessed by the strong reaction supported by a relevant group of producer countries and by the representatives of the wine producing system. In the spring of 2011, the representative of 12 Member State (MS) (initially 9: Germany, France, Italy, Cyprus, Luxembourg, Hungary, Austria, Portugal and Romania; later with the addition of: Spain, Slovakia and Czech Republic) have signed a letter aimed at stimulating the European Institutions to reconsider the decision about the liberalisation of planting rights, citing as evidence a list of possible risks connected to the abandonment of the current scheme: a new over production; a further depression of the less favoured areas in which grape growing plays a relevant role; the possible abandonment of small farms; the negative impact on the reputation of PDO; a progressive standardization of production; an excessive industrialization of growing methods, considering as a preferable option the maintenance of mechanisms of control of production potential.

The request for a revision of the decision of 2008 is worthy to be considered not only for the reasons indicated by the main Member States wine producers, but mainly for the opportuneness to confirm such a decision only after a general evaluation of: the rules of the functioning of the current CMO, in the general framework of the new CAP after 2013; the general condition of the market; and the level of fulfilment of objectives pursued with the last reform (2008).

Nevertheless, in the recent proposal presented by EU Commission about the future of the common agricultural policy (CAP) after 2013, there is not any reference to the possibility of removing the decision assumed in 2008 (abolishment of the current scheme starting from 2015), as there are no proposals about other relevant elements of the current CMO (COM(2011) 626 def.).

In this framework, it is useful to explore some preliminary issues related to the current scheme of function of plantings rights in the wine sector.

***The compatibility of the scheme with the common principles for CAP and EU international obligations*** – The CMO for wine has been characterized, since 1969, by specific rules of functioning in the framework of general rules for the other CMOs. The eccentricity of the CMO for wine has been recognized and confirmed in all the past processes of reform, on the assumption of the specific characteristics of the product, strictly differentiated on the basis of many different typologies of wines. The current proposal (European Commission, 2011) appears to follow the same pattern of the previous reform, with the maintenance of the mechanisms of support inside the National Support Programs (NSPs), with the options for each MS to select one or more measures from a menu of eight possible instruments: single payment scheme, promotion, restructuring and conversion of vineyards, green harvesting, mutual funds, harvest insurance, investments, by-product distillation. The proposed measures, as in the reform of 2008, are only partially represented by measures traditionally included in the first pillar of CAP (single payment scheme, green harvesting, by-product distillation), with the other measures (promotion, restructuring and conversion of vineyards, mutual funds, harvest insurance, investments)<sup>50</sup> conventionally included inside the Rural Development measures of the second pillar (Pomarici, Sardone, 2009). Hence, on the base of the proposal, after 2013 the CMO for wine, on the one hand, should preserve its specificity with regard to NSPs, and on the other hand, should ensure a higher level of homogeneity with the general principles and rules of CAP with regard only to the issue of liberalisation of planting rights, in accordance with

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<sup>50</sup> In particular, the proposal includes mutual funds and harvest insurance in the second pillar's measures, but on the basis of their nature, these instruments should be considered part of the first pillar.

similar decisions assumed with reference to the dairy and sugar sectors. In such a way the idea to recognize a specificity to EU policy for the wine sector appears quite questionable.

It is worth underlining that the decision to remove the scheme of planting rights is not connected with international obligations (i.e. in the GATT agreement, the control of production potential in the wine sector has never been accounted as a part of the Aggregate Measurement of Support; Anania, De Filippis, 1996).

***The relationship between planting rights regulation and EU policy concerning the social aspects of alcohol consumption*** - The EU has been for a long time committed to support national policies addressing social problems related to alcohol consumption. In 2001, the Council adopted a Recommendation on the drinking of alcohol by young people, in particular children and adolescents, which invites the Commission to follow up, assess and monitor developments and the measures taken, and to report back on the need for further actions. In 2006, the Communication from the Commission (COM(2006) 625 final) "An EU strategy to support Member States in reducing alcohol related harm" was published. Such a Communication firstly endorses activities targeted to young people's risky consumption, such as enforcement of restrictions on sales, on availability and on marketing likely to influence young people, broad community-based action to prevent harm and risky behaviour, involving teachers, parents, stakeholders and young people, supported by media messages and life-skills training programmes. In addition, it recognises the importance of a more severe policy against road accidents introducing a zero BAC (blood alcohol content) limit for young or inexperienced drivers and for professional drivers and the enforcement of drink-driving countermeasures and application of dissuasive sanctions against all who are found to be driving over the BAC limit. Finally, the Communication recognises the importance to inform, educate and raise awareness on the impact of harmful and hazardous alcohol consumption, and on appropriate consumption patterns for the whole population, promoting a stronger involvement of alcohol beverages producers this self-regulating practices in commercial communication and promotion, which are already constrained by Community law.

In such a political context, strongly focused on the moderation of the consumption of wine as an alcoholic beverage, the constraining action of the planting rights regulation appears completely coherent and functional to the EU objectives.

***The coherence of liberalisation of planting rights in Europe and the policy concerning PDO and PGI wines*** - From the beginning of the wine CMO (Reg. 24/62 and then Reg. 817/70), wine producers in Europe have been encouraged to develop their supply inside a regulation framework based on the value of the link between the wine and the producing area and the choice to define a wine category as <quality wine produced in a determined region> confirms the intention of the policy. Such an orientation was confirmed in item 27 of the foreword to Reg. 479/2008: "The concept of quality wines in the Community is based, inter alia, on the specific characteristics attributable to the wine's geographical origin. Such wines are identified for consumers via protected designations of origin and geographical indications". This policy orientation has determined huge investment through almost all wine regions to build on the local wine tradition modern supply systems based on precise rules that determine additional production cost. The positive performance of EU wine supply in international trade proves the effectiveness of such a policy. The planting rights regime (despite being born with a different scope) is working as a complement to the policy supporting PDO and PGI wines. The constraint on the area under vines has discouraged the establishment of an alternative wine supply with a short-run cost based competitive advantage, potentially able to compromise the strategic positioning of EU wines. With regard of the protection of PDO/PGI wines, such a constraining role is now particularly important as the new regulation allows that labelling

and presentation of wine may contain the vintage year and the name of one or more wine grape varieties (Reg. 1239/2007, art. 118z).

***The specific role of planting rights regime in the CMO for wine and its interaction with the others measures in the CMO*** – Over time, the planting rights scheme has assumed different roles inside the sectorial CMO. Of course the supply control in order to ensure a better equilibrium of the markets has represented the main purpose of the scheme from the entry into force (1976) to all the 1990s (Chapter 2). With the reform of 1999, the main objective of the CMO for wine has changed from the simple control of production in quantitative terms, towards a more relevant attention on the qualitative evolution of EU production and on the improvement of competitiveness of European wine production in the global market (Pomarici, Sardone, 2001 and 2009). In this perspective, the control of production potential confirmed until 2015 (or 2018 up to MS) could be considered as a mechanism ended to preserve the effectiveness of efforts produced by the simultaneous action of different measurers (new and old) devoted to the fulfilment of new global objectives.

In particular, the CMO of 2008 has identified two different sub-objectives useful in the pursuit of the main objective of a better market equilibrium: the research of a higher level of quality and competitiveness for the European wine industry, through the achievement of new positions in the global wine market, both within and outside the EU; the introduction of a system of simple, clear and effective rules, capable of ensuring a level of supply consistent with demand. In addition, another specific objective for the CMO is identified in the preservation of the European traditions with the purpose of consolidating the socio-environmental role of viticulture in rural areas.

The following table represents the instruments adopted in 2008 for the CMO's functioning classified on the basis of different objectives (or sub-objectives) pursued and of different typologies of measures: Measures of support (permanent and temporary), Regulatory measures, Measures for Potential production control (with or without budget expenditures).

The table shows quite clearly the relevance assigned to the objective of the improvement of "quality and competitiveness" in comparison to the traditional objective of "supply control". In fact, to support quality and competitiveness, four relevant permanent measures are available (up to each MS), supported by financial resources and associated with three permanent regulatory measures without any financial support. On the contrary, the supply control is ensured by three traditional market measures, even supported by financial resources, but characterized by limited operational duration to the end of 2012. A relevant contribution to the fulfilment of this objective is offered by a measure for production potential control, specifically addressed to the supply control, but is also limited to a transitional period: the end of 2011 for Grubbing up scheme and the end of 2015 (or 2018) for Planting rights scheme (2015 or 2018). In addition, alongside regulatory measures operating inside the CMO for wine, a positive contribution should be derived by actions organized by producers organizations (PO) and Inter-branch organisations (IBO). So, at the end of the phasing out period, the supply control will be granted by only one specific measure (Green harvesting), with the support of actions promoted by PO and IBO, operating without any specific financial support, and negatively affected by the maintenance of current rules on enrichment (addition of sucrose and possibility to upgrade the alcohol strength).

**Table 4.1. - Objective and Instruments of current CMO for wine**

Objectives	Market Equilibrium		Socio-environmental role	Farmers income
	<i>Quality and Competitiveness</i>	<i>Supply control</i>		
Instruments				
<b>Measures of support</b>				
Single payment scheme			X	X
Promotion	X		(*)	*
Restr. / conv. vineyard	X			*
Green harvesting		X		
Mutual funds				X
Harvest insurance				X
By product distillation	X			
Investments	X		*	*
Potable alcohol distil.		X		
Crisis distillation		X		
Use of concentrated must		X		
<b>Regulatory measures</b>				
Enrichment		O		O
PDO and PGI	X		X	*
Labelling (varietal wines)	X		O	O
PO and Inter-branch org.	X	X	X	
<b>Potential control</b>				
Grubbing up scheme		X		
Planting rights scheme		X	*	*

Note: X positive direct impact; \* positive indirect impact; O negative direct impact

	<i>Specific CMO objectives</i>
	<i>CAP general objectives</i>
	<i>Permanent measures of support</i>
	<i>Temporary measures of support</i>
	<i>Permanent regulatory measures without budget expenditure</i>
	<i>Temporary measure with budget expenditures</i>
	<i>Temporary measure without budget expenditures</i>

***The moral obligation to settle the issue of unlawful planting*** – In a scenario in which the liberalisation of planting rights allows new grape growers to enter in the wine market, an issue to be taken into account is that of unlawful planting. Since planting rights have a cost, grape growers who purchased them or regularised their unlawful plantings should be protected from those who did not grub-up their unlawful plantings, nor paid any penalties, just because they remained undiscovered. The ban of unlawful planting is linked to the

planting rights regime, so it is destined to disappear in the future, with the liberalisation process; anyway, the grubbing up of those already existing will remain compulsory also after the new regime will be implemented, as provided for by article 85a.3 of Regulation (CE) 1234/2007, as amended. Given this background, Member States should be encouraged to complete a penetrating control of planted areas in their territory, in order to provide, prior to the entry into force of the new regime, to grub up all the unlawful plantings still existing. Uncertain situations should be avoided, i.e. situations in which a Member State has to ascertain if a vineyard has been planted before or after the end of planting rights. It could be very difficult indeed, following the liberalization, to discover unlawful vineyards planted before the abolition of planting rights, with a potential serious harm to the competition regime.

#### 4.1.2. The CMO implementation: an overview

The analysis of the CMO for wine implementation in the period 2008-2011 shows that the most relevant action has been definitely acted by the Programme of restructuring and conversion of vineyards, that has been operating since 2000, receiving the most relevant share of the CMO budget (more than 35% in the previous and in the current CMO; a share that goes up to about 40% of NSPs for the period 2009-2013, see Table 4.2). As underlined in Table 4.1, the end of this measure is strictly connected with the improvement of competitiveness of European wine production through a higher level of qualitative characteristics. At the same time, the implementation of the programme is strictly based on the idea of the control of vineyards, both alongside of the global dimensions of EU surfaces (potential production control) and alongside of the evolution of qualitative characteristics, as witnessed by the necessity to produce year by year an update of the national Inventory of production potential to ensure the functioning of the measures and the assignment of corresponding funds.

**Table 4.2. - Financial table of NSPs by Member State: 2009-2013 (millions euros)**

Measures	BG	CZ	DE	EL	ES	FR	IT	CY	LT	LU	HU	MT	AT	PT	RO	SI	SK	UK	UE
Single payment scheme support				58.0	447.8					2.1		1.5						0.4	509.7
Promotion	7.6		6.9	18.2	156.8	184.7	265.5	0.6	0.2		1.5		8.0	51.5	2.4	4.4	0.2		708.4
Restructuring and conversion	95.6	14.8	77.3	23.2	364.0	465.1	520.0	10.4		0.1	91.3		18.0	189.1	206.1	16.0	18.1		2109.0
Green harvesting							105.0	1.0									0.6		106.6
Mutual funds																			0.0
Harvest insurance	9.5		7.7			1.7	95.8	0.6							1.6		0.5		117.4
Investments in enterprise		6.8	68.7		112.0	265.0	99.4	7.0			15.5		31.8				2.1		608.3
By-product distillation					157.4	179.0	101.6				9.6			13.2					460.8
Potable alcohol distillation					249.8		95.9				2.2			12.6					360.5
Crisis distillation						36.7	47.5												84.2
Use of concentrated grape must			3.2	2.2		55.2	177.9			0.2	2.1			7.6	0.4	0.4	0.4		249.7
<b>Total</b>	<b>112.7</b>	<b>21.6</b>	<b>163.8</b>	<b>101.5</b>	<b>1,487.9</b>	<b>1,187.4</b>	<b>1,508.5</b>	<b>19.6</b>	<b>0.2</b>	<b>2.5</b>	<b>122.2</b>	<b>1.5</b>	<b>57.8</b>	<b>274.0</b>	<b>210.5</b>	<b>21.4</b>	<b>21.4</b>	<b>0.4</b>	<b>5,314.7</b>

Source: European Commission.

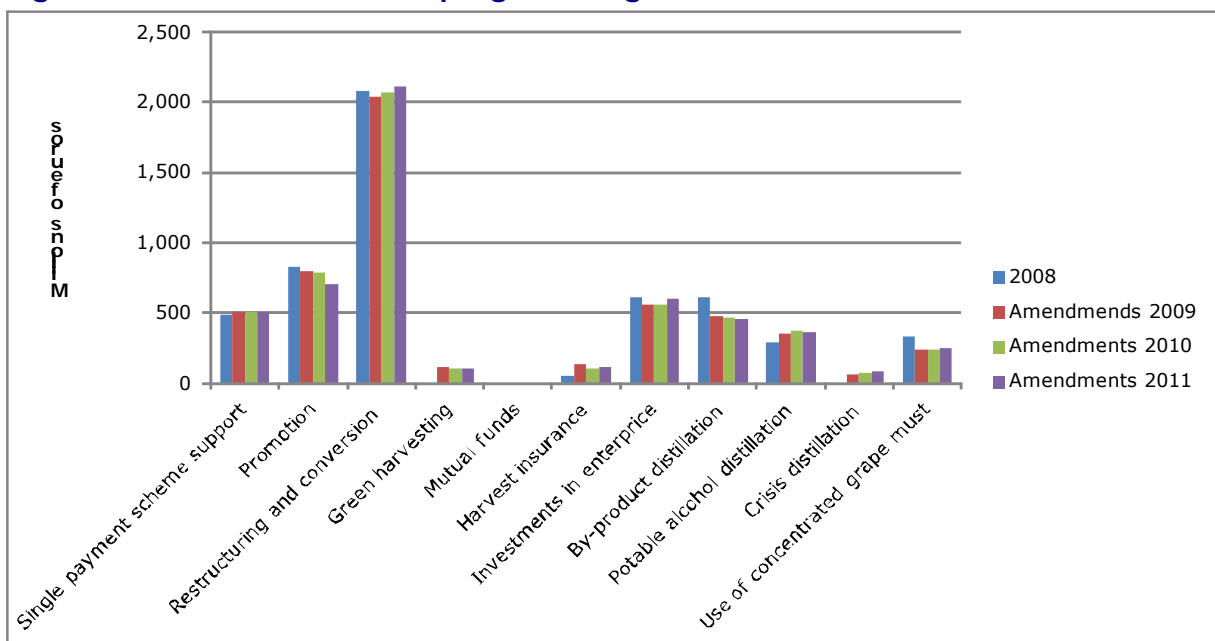
Promotion in third countries and Investments in enterprises represent two other new instruments, introduced in 2008, aimed at strengthening the competitiveness of European wine production. These measures can benefit from global resources corresponding to a share of 11.4% and 13.3% of the total envelopes for the NSPs. After the end of 2012, among the traditional measures derived by the previous CMO, only the By product distillation (8.7% of global resources for NSPs in the period) will continue to act.



On the side of the measures for supply control, in the framework of global NSPs, the main role has been provided by Potable alcohol distillation (6.8% of resources), followed by Use of concentrated grape must (4.7%). A marginal share of resources has been assigned to Crisis distillation (1.6) and to Green harvesting (2.0%). Among the measures for the support of farmers' income it is worth underlining the relevance of the SPS (10%), almost entirely concentrated in Spain. The new instruments of Harvest insurance, with a marginal share of 2.2%, shows a significant concentration in a few MS, particularly Italy. No MS has assigned, till 2011, resources to support the constitution of Mutual funds.

It is significant that the evolution of NSPs programming by MS (Figure 4.1) shows a reduction of resources initially - according to the first submission of NSPs in 2008 - assigned to Promotion, Green harvesting, By product distillation and Use of CGM; in contrast, Harvest insurance and two relevant measures in phasing-out (distillations for crisis and for potable alcohol) have experienced a growing interest.

**Figure 4.1. - Evolution of MS programming: 2008–2011**



Source: European Commission.

In the framework of the new CMO, a relevant role in the achievement of a better market equilibrium has been assigned to the programme of permanent abandonment of viticulture, that has worked during the period 2009–2011. The resources devoted to the grubbing up scheme have represented about 16.8% of total resources for the CMO in the period 2009–2013. The scheme has permitted a reduction of surface corresponding to about 164,000 ha of vineyards - corresponding to about 5% of the global EU surface of grapes for wine – mainly located in Spain, Italy, France and Hungary. As a consequence, the yearly reduction of production (estimated in about 10.5 million of hectolitres) has been centred in the same MS: 58% in Spain, 18% in Italy, 14% in France and 3.5% in Hungary. The global implementation of the scheme should produce an overall estimated yearly production reduction corresponding to 6.0% of the last five years EU average, concentrated for 1/3 in the highest classes of production (90 hl/ha and over).



**Table 4.3. - Grubbing up Scheme: reduction of surface (ha) and of yearly production (000 hl)**

	BG	CZ	DE	EL	ES	FR	IT	CY	LU	HU	MT	AT	PT	RO	SI	SK	EU
hl (000)	3.2	0.3	13.0	150.3	4,542.1	1,510.0	3,445.8	128.3	0.3	367.9	-	53.7	235.0	44.7	10.0	18.6	10,523.2
Reduction/Production (%)	0.2	0.0	0.1	4.1	11.0	3.1	6.7	65.0	0.2	11.3	-	2.1	3.6	0.8	1.2	5.3	6.0
ha	65	13	113	1,998	95,097	22,938	29,820	1,638	2	5,724	-	835	3,937	837	183	577	163,777
Reduction/Surface (%)	0.1	0.1	0.1	2.8	8.7	2.7	4.3	12.0	0.1	7.0	-	1.7	1.6	0.5	1.1	2.8	5.0

**Source:** European Commission.

In summary, the analysis of the global amount of resources assigned by MS to the different instruments provided by the wine CMO (around 6.390 million Euros in the period 2009–2013) witnesses that 60.8% of programmed expenditures has been addressed in favour of proactive measures aimed at the improvement of quality of production and competitiveness (promotion, restructuring and conversion of vineyard, by product distillation and investments). In the meantime, another relevant amount of resources (29.3% of the total in the same period) has been addressed to support measures involved in the pursuit of supply control (green harvesting, potable alcohol distillation, crisis distillation, use of concentrated must, grubbing up scheme). So the traditional measures of the first pillar of the CAP, focused on income support of producers (single payment scheme, mutual funds, harvest insurance), have benefited by less than 10% of global resources.

These results show both a difficulty of implementation of specific new measures introduced in 2008 and a still relevant interest in the measures being phased-out. In the meantime, it appears clear that the distribution of resources is still deeply influenced by specific characteristics of the CMO, as witnessed by the small role of the single payment scheme.

Moving from this evidence, in the following pages will be presented some suggestions for the improvement of specific strategic measures already included in the current CMO (§4.2.1), in order to facilitate the fulfilment of the pursued objectives.

#### 4.1.3. Political options for reform

In the framework of the current process of reform for the CAP after 2013, the issue of a revision of the planned abolishment of the planting rights scheme has not yet been formally taken in account. Conditions necessary for a formal request to the Commission to reconsider the current decision (number of MS, number of votes in Council), despite nearly being reached, are not yet sufficient.

Moreover, on the basis of the current proposal for the CAP after 2013 (COM(2011) 626 def.) - and particularly with reference to the wine CMO - the set of instruments for the policy in the wine sector will be reduced to the eight permanent measures included in the NSPs (Table 4.1), supported by regulatory measures and by the planting rights scheme, functioning for a limited period variable between 2 or 5 years (up to each MS).

In this perspective, it seems clear that the EU Commission's evaluation has confirmed general decisions assumed in 2008, by not proposing any relevant adjustment to the current rules.

Nevertheless, the EU Commission has recently decided to discuss the issue with a "High level group" with qualified representatives from MS, similar to those appointed in the milk sector (see §4.2.2.1).

Looking at the previous Table 4.1, however, it is possible to underline that the issue of maintenance or abolishment of the planting rights is a matter that should not be evaluated

outside the general evaluation of the functioning of the current CMO and of its implementation across the EU.

Moving from this idea, it is possible to design four different scenarios to take into consideration the different options of reform available for the European Commission and European Parliament in this phase of discussion (Table 4.4).

In the next pages the study will focus on Options 2 and 4, exploring:

- The opportunity to confirm the decision of 2008 to reach a liberalisation of vineyards, with the reinforcement/introduction of accompanying measures in order to avoid the risk of a disequilibrium of the wine market and to make the CMO for the wine sector more integrated in the general rules of the future CAP, post 2013;
- The opportunity to confirm the planting rights scheme after 2015 (or 2018), with renewed rules of management, eventually associated to a possible revision of other measures of the CMO.

**Table 4.4. - Different Scenarios for the “planting rights” scheme**

	<b>Planting rights</b>	<b>National support programme</b>
Option 1: Full implementation of 2008 decisions	NO (after 2015/18)	Full implementation of current rules and maintenance of the programmed set of measures
Option 2: Partial reform of current CMO	NO (after 2015/18)	Renewal of the programmed set of measures, with the inclusion of some instruments for market control
Option 2: Reforming planting rights scheme	YES	Full implementation of current rules and maintenance of the programmed set of measures
Option 4: Global reform of the CMO	YES (possible revision of current rules)	Renew of the programmed set of measures, with the inclusion of some instruments for market control

Note: in grey are indicated two options not to be investigated.

## **4.2. New measures and tools in the framework of the post planting rights regime**

### **4.2.1. The reinforcement and revision of current instruments included in the CMO for wine**

#### **4.2.1.1. Measures of support**

All measures in the National Support Programs are directly or indirectly useful as compensation in the framework of the abolishment of the planting rights regime. In fact, most of the measures included in NSPs could play a strategic role in granting an improvement of EU wines' competitiveness on world markets, an objective that assumes a bigger relevance in the post planting rights scenario.

This paragraph is focused on the measures for which the application rules require major modification or additional effort for the full deployment of their efficacy. Such measures are:

- Promotion
- Restructuring
- Investments
- Mutual funds
- Harvest insurance

Restructuring, Promotion and Investments are the three measures able to enhance the structure of the European wine industry operating along the whole supply chain (Table 4.1), with specific reference to the necessity to adjust the supply to each different market segment. Anyway each of such measures should be improved in order to fully deploy its potential.

These measures should be used at least partially in a targeted way to support the wine supply in the less favoured areas in order to enable such supply to sustain the competition with producers located in more cost effective areas.

**Promotion** - The support to promotion (Art. 103 p, Reg. 1237/2007), introduced with the 2008 reform, is already playing a crucial role in sustaining the competitiveness of European wine supply and is a candidate to absorb a relevant share of the wine budget in the CMO. To improve the capacity of the measure, it seems important to maintain and keep in the line that still exist, but looking for more flexibility in its application. In particular it is possible to underline at least five fundamental points:

- actually it is crucial to allow promotional activities also in the EU and not only for third countries, while the most important market of European wines is Europe (the internal market provides nearly 70% of total European wine trade; see Chapter 1);
- considering changes in programmes presented as normal and not exceptional, as long as they are justified by the firm;
- reduce the administrative burden linked to the application for promotion funding, as the current scheme is usually considered really complicated, hampering the advantages of this instrument;
- apply a selection procedure of the promotion plans submitted for the financial support able to guarantee their internal coherence and innovativeness;
- admit the possibility to extend the financial support of successful programmes – for a given beneficiary in a given country, currently limited to three years (Reg. 555/2008 art. 4) – in case of a new submission and on the base of a renewed or more extended activity.

The access to this measures should be privileged for a network of firms where large companies are linked with medium and small ones, particularly when such smaller companies are located in less favoured areas. In fact the success of a programme of promotion, especially if directed towards big markets, appears strictly linked to the achievement of a critical mass of products among firms with different dimensions and characteristics.

**Restructuring** - Restructuring and conversion of vineyards (Art. 103 q, Reg. 1234/2007) is operating successfully since 1999 reform. It should be focused on cost saving, eventually

favouring the joint access to measures in RDP to acquire vineyard specific machines, particularly for pruning, as such operations are very labour intensive, but it is possible to use specialised operating machines also in small vineyards.

**Investments** - This measure is the most problematic. The support to tangible or intangible investments in processing facilities, winery infrastructure and marketing of wine was included in the 2008 reform under strong political pressure, but without a clear idea on structuring the measure. The need to publish quickly Reg. 479/2008 pushed to respond to the political demand for stronger action on improving the European wine industry structure, reproducing the logical framework of Rural Development Plans. The result was the emergence of the problem known as "demarcation" and, as a consequence, a minimalistic use of such a measure. The need to counterbalance risks linked with the abolishment of the planting right regime, enhancing the European wine competitiveness, makes it urgent to change the mechanism of this measure, starting from a reflection of the strategic needs of the European wine industry. In this perspective, the investments measure should be implemented with the scope to oppose, to very large enterprises of the new world, some European supply systems able to exploit the same economies of scale, without losing the rich array of SMEs which characterise the EU, implementing large investments, with a high level of innovativeness and immateriality. Such investments could encompass production equipments, new products, acquisition of location and equipments for commercial activity and integrated logistic networks. In all cases in which it is applicable, the extensive and intensive use of ICT should be encouraged. In particular, investment regulation should allow the localisation of supported assets also outside the MS where the headquarters of the company or the network of firms realising the investment is located. As a matter of fact, it could be helpful to establish commercial offices, flag stores, bottling lines and technologically advanced warehouses far from the wine producing area.

A specific destination of funds for investments could be the realisation of plants for the production of sugar from grapes, trying to exploit the new opportunities to market this product, which has specific technological qualities highly appreciated in the non alcoholic beverage industry. Such opportunities as already exploited by Argentina (see §3.3.1 and Annex III.4).

Access to these measures should be open to all kinds of companies but, as in the case of promotion, should be privileged for networks of firms where large companies are linked with medium and small ones, particularly when such smaller companies are located in less favoured areas.

**Mutual funds and harvest insurance** - Among the measures of National Support Programmes that could potentially compensate for the abolishment of the planting rights regime the tools currently available for risk and crisis management in the 2008 wine CMO could turn out to have a little role unless a rethinking of their function and features is undertaken. On the one hand, we have seen that current measures – reconfirmed in the draft regulation for the new single CMO (EU Commission, 2011b) – have had a limited role in NSPs (harvest insurance) or were not implemented at all (support for the administrative costs of setting up mutual funds). On the other hand, the nature of risk management tools – meant to compensate transitory losses due to phytosanitary, environmental or market occurrences – does not allow to effectively deal with structural changes such as that envisaged for planting rights. Under the expectation that the abolishment of planting rights could increase market price instability only in the transition period, the "compensation" for the abolishment of planting rights would be mainly indirect.

Harvest insurance absorbed a limited amount of resources also because of the possibility to finance it with other CAP measures (Art. 68 from the Health Check), while the lack of

interest for mutual funds may have been determined by national legislation constraints in some cases (i.e. Italy), although more probably the measure proved to be ineffective due to the nature of such a tool and the limited support provided. Effectiveness of mutual funds relates, among other things, to the number and characteristics of participants, which affect the range of risks the fund can take and its financial capacity to deal with systemic risks, above all in the first years of functioning<sup>51</sup> (European Parliament, 2005). Moreover, the weak incentives provided seem incapable to induce farmers' participation, especially in many areas of grape and wine production where tradition and experiences of mutuality are poor.

Lack of incentives and displacement by other risk measures should even become stronger in the wake of the new risk management package envisaged in the draft new regulation on rural development (EU Commission, 2011a). At a first glance, the new provisions replacing Art. 68 would provide even wider and deeper options for risk management overlapping with the current wine CMO<sup>52</sup>. This is also based upon the lack of any changes to the structure and funding for risk management measures detected in the draft regulation for the new single CMO. Therefore, "compensations" for the abolishment of planting rights, in terms of risk management policies, are probably to be looked for outside the boundaries of the CMO.

Under the assumption – currently necessary, based on the new draft regulations – that provisions on risk management will be kept on both tracks, some further considerations may apply. Firstly, considering that support for the implementation of mutual funds did not get attention by producers, the role of saving/credit in transferring risk overtime would probably be shaped by mutual funds envisaged in the new regulation on rural development, since in that framework support would not be restricted to administrative costs of setting up the mutual fund. Secondly, by moving the bulk of risk management support from the first Pillar (Art. 68) to the second Pillar of the CAP, the coordination between any CMO funds for risk management and RDP measures financing should be reconsidered. Thirdly, the option for a "second pillar approach" would require a careful treatment of coordination between national and regional rural development strategies: a number of regions, above all in the Italian and Spanish cases, would be called to make the fundamental choices in the financial and regulatory set up of a mix of risk management measures. The result of a sum of independent decision of regions could be harmful particularly for mutual funds - which are the tool provided by the new regulation on rural development for the purpose of income stabilization - the effectiveness and sustainability of which we have seen to be growing along with the area and sectors involved.

Finally, looking for a rationale for keeping risk management measures also in the wine CMO, specific provisions might be more strictly linked to the operation of Producer Organizations. On the one hand POs could be in a good position to boost and perform mutual risk management functions, such as creating mutual funds and widening risk-pooling through insurance networking with other funds and insurances, or managing financial derivatives to hedge price risk. On the other hand, providing specific incentives to

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<sup>51</sup> The effectiveness of a mutual fund depends on the accumulation of sufficient reserves on which farmers can count in case of income losses. When severe and diffused losses are caused by adverse climatic events or economic crises, a large number of members of the mutual fund would be hurt, especially when the scope of the fund is sectorially and/or geographically limited. The systemic character of risks can be particularly problematic at the beginning stage of a mutual fund's activity, when the gathered capital can be insufficient to cover losses incurred by many participants at once.

<sup>52</sup> The toolkit proposed in the draft regulation on rural development (Art. 37) is made of three items:

- a financial contributions, paid directly to farmers, to premiums for crop, animal and plant insurance against economic losses caused by adverse climatic events and animal or plant diseases or pest infestation;
- a financial contributions to mutual funds to pay financial compensations to farmers, for economic losses caused by the outbreak of an animal or plant disease or an environmental incident;
- an income stabilization tool, in the form of financial contributions to mutual funds, providing compensation to farmers who experience a severe drop in their income.

POs implementing risk management measures (as it is the case of the F&V CMO<sup>53</sup>) could increase the attractiveness of POs to producers and, by doing so, strengthen an instrument capable of dealing more effectively with the impacts of the abolishment of the current planting rights regime.

Along with the existing and predictable risk and crisis management tools – and probably also in connection to some of the solutions under scrutiny proposed by the new risk package to be placed under Pillar II of the CAP - a further 'instrument' for risk management and crisis prevention is to be considered: the implementation of market intelligence activities. The monitoring of wine markets through the collection, elaboration and analysis of relevant data on prices, consumer preferences and behaviours, product supply and meteorological trends and their dissemination among POs may help in anticipating possible temporary or structural crises that could be better managed and prevented with timely intervention.

The implementation of this activity is not easy and would require a certain degree of centralization in agencies capable of serving POs, or mutual funds, or the insurance system. Moreover, this could be a very difficult exercise because of the complex process of price formation along the wine supply chain, which depends on several factors embodied in the relational frameworks and structural inefficiencies existing inside the chain. It is therefore necessary to facilitate the implementation of such instruments, for example with an EU supported feasibility study resulting in the production of functioning models suitable for the wine sector (e.g. similar study supported for F&V sector).

#### 4.2.1.2. Regulatory Measures

The latent risk of overproduction linked to the abolishment of the planting rights regime suggests operating also on the side of regulatory measures. Such measures are:

- Enrichment
- Producer Organisation
- Inter-branch Organisation

**Enrichment** – In order to constrain the artificial increase of the sugar content of must, enrichment should be allowed only using concentrated must or physical practices; moreover, the limits for enrichment should be reduced at least at the level included in the first reform proposal (COM(2006) 319).

Such intervention looks realistic. Vine growers would be pressed to contain yields in order to produce enough sugar in the vineyard; this is possible in all EU territories, as is demonstrated for years by scientific studies (INEA 2010) and climate change is making the target zero enrichment easier to catch. Moreover the consumer attitude is moving toward wines with less alcohol and each rule favouring the increase of the alcoholic degree of wine looks inappropriate.

**Producer Organisations** - Among the measures implemented to improve the producers' bargaining power, the producer organisations (POs) can provide a useful tool in restoring balance to market relationships, acting as a contractual power and redistributing added value. The producer organisations are an important tool in governing agricultural production which, by means of functions such as aggregation and concentration of production as well as planning and enhancing supply, enables producers to regain strategic levers (differentiation and recognisability of products, information, etc.) and the chance to

<sup>53</sup> Along with the integration of measures for risk management in the operational programs of F&V POs, Reg. 1234/2007 (single CMO) provide for an increase to 4.6% of Community aid in the case that a PO decides to implement them, provided that the excess (0.5%) is used only for crisis prevention and management.



put themselves on the market in a more competitive condition (INEA, 2011). The importance of these functions is obvious, not only because they fulfill the need to counteract the contractual strength of the large-scale retailers, but they also make it possible to govern the market and play a part, through production planning, in an effective preventive action against crises in the market (Petriccione, 2009). In the scenario of liberalisation of planting rights, planning supply constitutes a strong market tool for a greater stability in prices and therefore income of producers.

The European Commission has assigned greater importance to this instrument as shown by the choice of extending the recognition of POs and other forms of association to the full range of agricultural production. Reference is made to extend the fruit and vegetable model to all the other agribusiness sectors.

In the wine sector, the possibility for Member States to recognise producer organizations was established already in the reform of 1999 (CMO Regulation (EC) No 1493 of 17 May 1999), defining the aims that they had to pursue; these objectives have been further specified in Regulation No 1234/2007 on the common organisation of agricultural markets (Single CMO Regulation), redefining terms and purposes. Nevertheless, in recent years the development of these forms of producer associations did not occur and it could be due to the lack of certain conditions so that producer organizations could play a significant role in the organization of the supply, promotion and construction of new relationships with the distribution system, through the allocation of a specific budget and specific addresses (as it occurred in the fruit and vegetable sector) (INEA, 2009).

In order to incentivise the aggregation process in the wine sector, some measures that could be introduced concerned the last reform of the fruit and vegetables sector. The working group "wine" of COPA-COGECA, after consultation with the European agricultural organizations, has prepared a document which contains preliminary considerations on producer organizations in the wine sector. Some delegations argued that the POs should play additional roles compared to those provided by the Regulation (EC) No 1234/2007.

First of all, assigning to POs the task of concentrating supply and commercializing the production of their members is of crucial importance, pointing out that the POs should play an entrepreneurial activity. In addition, POs should carry out additional roles such as activities in order to adapt demand and supply also in qualitative terms.

Regarding these additional roles, POs in the wine sector could use the operational programmes for supply management and for the implementation of business strategies, in order to achieve both a greater ability to plan the supply to the adaptation of demand (qualitative and quantitative) and a more efficient common commercial strategy. As for the F&V sector, also in the wine sector the operation programmes could have a duration between three and five years with a number of main objectives to be pursued, such as the planning of production, the concentration of supply and the improvement of product quality.

Regarding the effectiveness of such Operational Programmes, it should be noted that an EU evaluation report (Agrosynergie, 2008), in relation to the F&V sector, shows that «the programmes are effective vis-à-vis the objectives of improving the competitiveness», as well as «in improving the production quality, the security and homogeneity of the products and in respecting clients' specifications». On the other hand, the report highlights that «concerning promotion and advertisements, the effectiveness of the programmes is poor» with the resulting marginal role in the reinforcement of producers' position. Anyway a positive assessment of the operational programmes emerges also from the INEA study for the European Parliament on the Post-2013 CAP Perspective in the F&V sector: almost all interviewed POs are in favour of continuing operational programmes in the Post-2013 CMO

and consider these programmes “the sole effective instrument of aggregation able to guarantee the competitiveness of the F&V sector”.

As occurred in the F&V sector with the reform of 2007, in order to increase attractiveness of POs for producers, it could be suggested to integrate among the functions of POs the management of aid for crisis prevention and management measures, also for the wine sector. Regarding the F&V sector, these measures may be extended to non-members of POs (although with a limited subsidy) and the Community financial assistance may be increased from 4.1% to 4.6% of the value of the marketed production, provided that the amount in excess of 4.1% is used solely for crisis prevention and management measures. For the wine sector, aid to specific measures (such as promotion, green harvesting, mutual funds, harvest insurance) currently provided in support programmes could be managed through Producer Organisations and their Operational Programmes.

**Table 4.5. - Measures of Support Programmes (wine) and measures for crisis prevention and management (F&V sector)**

WINE SECTOR	F&V SECTOR
<b>Measures of Support Programmes:</b>	<b>Measures for crisis prevention and management:</b>
Single payment scheme	
Promotion	Promotion and communication
Restr. / conv. vineyard	
Green harvesting	Green harvesting or non-harvesting
Mutual funds	Mutual funds
Harvest insurance	Harvest insurance
By product distillation	
Investments	
Potable alcohol distillation	
Crisis distillation	Market withdrawal
Use of concentrated grape must	
	Training measures

Regarding the amount of product that the members should deliver to the PO, the views of the agricultural organizations vary from a significant minimum level to 100% of members' production; in this respect, it is useful to underline that, in the F&V sector the 2007 reform introduced the extent of direct sales permitted for PO members as a provision for more flexibility in the operation of producer organizations.

Another important issue concerns the minimum size criteria for recognition of producer organisations. These could include annual production and minimum number of producers or a share of the market/region production, leaving flexibility to Member States on the final decision of these criteria. In this regard, it should be stressed that, on one hand, it is important that the POs aim to reach a significant size achieving economies of scale and create critical mass; on the other hand if the criteria are too hard to be addressed it could become an obstacle to the development and growth of POs in the wine sector, characterized by several territorial situations with a small productive dimension.

**Interbranch Organisations-** The European Commission has recognised the Interbranch since 1990. Thereafter the Commission has proposed a sectoral application through different CMOs (tobacco, 1992; fruit and vegetables, 1996; wine CMO, 1999), providing for each of these sectors the possibility of establishing interbranch organizations (IBOs). Currently the IBOs are regulated by Regulation (EC) No. 1234/2007 amended by Regulation (EC) No. 491/2009 of 25 May 2009 that introduces also rules for the wine



sector. The increasing importance attributed to this organism by the European Commission is clear in the Commission proposal for the new CAP after 2013 which specifies that Interbranch organisations can play an important part in allowing dialogue among all actors in the supply chain, and in promoting best practices and market transparency. Furthermore, the Commission stresses that existing rules on the definition and recognition of such organisations should be extended in all sectors.

Interbranch organizations represent an important tool for rebalancing power relations and improving value added distribution among all actors in the supply chain. Coronel and Liagre (2006) define three main types of mission concerning the interbranch: (i) correct the imbalances in economic relations among the different phases of the supply chain to move towards greater equity in trade; (ii) improving the performance of supply chain (competitiveness, market share, innovation, etc.) by collective action; (iii) represent the professionals' interests in the supply chain in negotiations with governments, regional integration organizations and increasingly, in some cases, in international authorities. The benefits from these types of organisms derive indeed from the possibility of a dialogue between all actors in the supply chain, allowing a greater sharing of information to promote transparency of the market assessment and planning activities; so the recognition of interbranch organization allows a reduction of the opportunistic behaviours encouraging cooperative attitudes by the sharing of rules of economic relations. Another important advantage of using these organisms is the possibility of representing the interests on institutional tables, influencing the definition of economic policy choices.

The reference sector for the Interbranch devices, as for the POs, is the fruit and vegetable sector in which interbranch organisations and agreements represent consolidated instruments of supply chain management for some products and specific areas. Some critical issues arise in transferring the F&V sector experience to the wine sector, characterized by a higher structural differentiation both at territorial level (with a strong link between the product and the territorial scope) and at qualitative level, with quality wines distributed among dozens of designations of origin and common wines (making it closer to other sectors such as dairy products). "Product designations (PDO, PGI, etc.) are the recognition of the right of collective ownership by its trustees within the supply chain based on origin (territory) and tradition, developed through time, of the production practices used to create such products, and such ownership can only be managed collectively, therefore interprofession seems the best response in terms of organisational structure. The strong territorial nature of a designated product which requires the collective management of production and market choices through that which the classification offered by Barjolle, Chappuis and Sylvander (1998) defines as "strong territorial governance", therefore identifies the interprofessional organisation as the third party institution which is able to organise the supply chain and establish fair relations between its members, increasing their ability to protect their interests before the public administration and their competitors" (Giacomini et al., 2010).

Because of the mentioned territorial and qualitative differentiation, it is difficult to implement a single interbranch organism in the wine sector; for high quality wines more appropriate seems the presence of interbranch organizations specific to the different designations of origin. In fact, a study from the *Centre d'études et de prospective* of the French Ministry of Agriculture states that when a few actors cooperate to preserve the value of a quality product, an interbranch of limited size has shown its effectiveness (Cadilhon et al., 2011). In contrast, in the case of standard productions from the whole territory, the national level seems better adapted, without however excluding subdivisions across the different production areas. Interbranch can still be faced with trade-offs between an organization closer to territorial issues, reflecting the specifics of the product, and an organization on a wider area to reduce transaction costs). Similar considerations arise from

the report “Le regroupement et l’organisation des interprofessions viticoles” (Despey, 2010) with regard to the French wine sector. In particular, the study suggests there is utility in developing a unique national interbranch for the management and control of wines without geographical indication.

Interbranch agreements represent an important tool of IBOs; through these agreements a common strategy is built, agreed by the various partners in the supply chain, which has the nature of the collective bargaining contracts which have the purpose of governing the behaviour of the members in their respective businesses and in the market in order to achieve the objectives laid down by the interprofession (Giacomini et al., 2010). One of the key aspects for the development of interbranch organizations and agreements is the existence of a regulatory framework which will extend to non-associated decisions taken in interbranch agreements. The Commission proposal for the new CAP after 2013 stresses that existing provisions in various sectors — boosting the impact of interbranch organisations by permitting Member States, under certain conditions, to extend certain rules of such organisations to non-member operators — have proved effective and should be harmonised, streamlined and extended to all sectors. In particular, for the wine sector Member States should be able to implement decisions taken by interbranch organisations in order to improve the operation of the market for wines, excluding practices which could distort competition. In this regard an important headway for the wine sector, was represented by Reg. 1234/2007 (Art. 113c) that provides a particular exception regarding marketing rules to improve and stabilise the operation of the common market in wines. According to this Article, producer Member States may lay down marketing rules to regulate supply, particularly by way of implementing decisions taken by the IBOs referred to in Articles 123(3) and 125<sup>54</sup>. Despite this, a greater boost of Member States and a simplification process of procedures for extension of the rules, could be an important element of spread of interbranch organisms. Moreover, it could be useful to establish more specific guidelines at a European level in order to allow a more effective supply management by IBOs, in concert with national and local institutions. These guidelines should concern the vine area, the yields and the marketing of production in order to increase the effectiveness of these Interbranch organisms.

Summing up, POs and IBOs represent important tools in restoring balance in economic relations among the supply chain; it looks clear that the institutional framework derived from the fruit and vegetable sector is not fully suitable for a direct transfer in the wine sector, where the internal structure of the industry is rather different, despite the existence of many forms of integration among producers. Nevertheless, such organisation could play a major role in making stronger and more stable the relationships between producers and the final market, becoming also a kind of pivot for an effective use of Promotion and Investment measures, considering that the axes to gain competitiveness in international markets are dimension, planning, organisation and quality. To allow wine producers' organisation and wine interbranch organisation to play the role that the current, and likely future, policy assign to such structures, it is necessary to define suitable operative models and financial support.

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<sup>54</sup> Such rules shall be proportionate to the objective pursued and shall not:

- relate to any transaction after the first marketing of the produce concerned;
- allow for price fixing, including where prices are set for guidance or recommendation;
- render unavailable an excessive proportion of the vintage that would otherwise be available;
- provide scope for refusing to issue the national and Community certificates required for the circulation and marketing of wines where such marketing is in accordance with those rules.

#### **4.2.1.3. Rules on production potential**

In case of abolishment of the planting rights, it would be useful to maintain the vineyard register after 2015 (or 2018) in order to follow production potential<sup>55</sup>.

In addition the maintenance of a mechanism of control and collection data about the production potential represents an useful tool to complete the actions concerning unlawful vineyards.

In the option of liberalisation, the opportunity should be investigated to develop instruments available to MS aimed at ensuring a minimal control on the evolution of surfaces for vines. Such instruments could be useful in avoiding both a relevant process of relocation of vineyards toward areas not traditionally suited for wine and the abandonment of area (especially marginal areas) in which winegrowing plays a strategic role for socioeconomic stability.

In this framework, the role of MS should also be addressed to providing the compliance of new vineyards with a specified minimum standard of quality (selection of: expansion areas, permitted grape varieties, methods of cultivation admitted) in order to ensure the best results for the quality and competitiveness of new productions.

#### **4.2.2. The new instruments**

The wine supply chain has always been considered as a complex and fragmented one. Cooperatives and large companies account for a significant percentage of the industry and have significant technology requirements; they cohabit with small and medium enterprises, many of which have found niches in specialty products and branding. There is also a myriad of other support companies that provide for materials, transportation, storage and other services.

In this framework, it is necessary to understand what impact the liberalisation of planting rights could have on each level of the supply chain, in order to better underline critical issues and concerns in a new liberalised European wine market.

Even if the wine supply chain has its unique characteristics, it is nonetheless possible to take into account some of the solutions proposed in the milk sector that is going to be reformed.

##### **4.2.2.1. Contractual relations in the milk package and the wine supply chain**

The milk package has provided for a liberalisation of the milk sector, since, as underlined by the Commission, the existence for a long period of fixed quotas and high institutional prices guaranteed outlets for dairy commodities and created rigidities in the market. Indeed, the dairy reform should mirror a better freedom to farm. Liberalisation in this sector should lead to efficiency gains and should allow for the EU sector to take advantage of market opportunities, inside and outside the EU. Given this background, the legislative proposal of the Commission aims to strengthen the European milk sector, intervening on the following key aspects: contractual relations, bargaining power, producer organisations and interbranch organisations. Transparency and exemptions from competition law have been also provided for. Among these measures, the contractual solution to increase the bargaining power of farmers is well designed to work also for the wine sector. In fact, as underlined, the wine supply chain is quite complex (see Chapter 1), as many critical elements can be identified in a liberalised market. Can these critical issues be compared

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<sup>55</sup> It is useful to underline that the current proposal for a new Single CMO Regulation (COM(2011) 626) provides that after 1 January 2016, the Commission may, by means of an implementing act, no longer apply the vineyard Register and Inventory (Art. 102).

with those in the milk supply chain? And with which limits? Answering these questions can be relevant in order to understand if the solutions already adopted can be extended to other sectors.

So, in the milk supply chain, a first problem to be resolved has been that of variation of prices of raw milk. A lower concentration of supply in many cases has been found, with a consequential imbalance in bargaining power in the supply chain between farmers and dairies. Since the dairy supply chain is made of producers, processors, distributors and retailers, the disequilibrium can be specially recorded between retailers on the one hand and farmers and processors on the other. Imbalances are accentuated by the fact that producers often cannot change their purchasers, given the high costs of collection and transport. This means that they are in a position of economic dependence vis-à-vis their processors, with a consequent problem of profit sharing between the supply chain upstream and downstream. As a resulting problem, the transmission of price along the chain often damages farmers. In contrast, value added is most concentrated in the downstream sectors, notably dairies.

The proposed solution, given this background, is the provision of written contracts between farmers and processors to oblige purchasers of milk to offer to farmers a minimum contract duration. The High Level Group on milk proposed, and the Commission transposed, enforcing the bargaining power of farmers with this instrument, allowing Member States to bind the parties of the milk chain to negotiate the price of raw milk. This has been considered the best way of defending farmers in a liberalised market, because they too often know the price of raw milk only after its production and have low bargaining power.

A similar situation can be reported in the wine supply chain with some exceptions.

- At the grape production level there are associated grape producers who sell their grapes to the cooperative with which they take part, for the transformation into bulk wine; but there are also individual grape growers who usually sell a certain percentage of grape to the intermediate market for wine production. This last passage in the supply chain signs a first critical issue. The grape price can be very low, given the market supply. As a consequence, between producers and the intermediate grape market there is the same imbalance we can find in the milk supply chain, since producers have a low bargaining power and the price payable for the delivery is not always set out in advance, at the expense of producers themselves. We must bear in mind, however, that usually this problem does affect a certain percentage of grape producers, which varies on the basis of the national structure of the supply chain. In fact it does not affect cooperatives, which buy grapes from their associated, nor vertical integrated producers who take part in the transformation process.

With these exceptions, the introduction of contractual relations for the sale of grapes in the intermediate market could have two positive effects:

- To increase the bargaining power of grape growers, protecting their production;
- To avoid a delocalisation of the production, which in a liberalised market is an actual risk. In fact, even if the issue of delocalisation of the production is wide, because it invests as a consequence in a market free from planting rights, it cannot be denied that it also relates to the price of grapes: if no instrument is provided for limiting the imbalance between producers and first purchasers of the intermediate market, grape growers will tend to relocate their production to decrease costs and compensate the risk of not covering production costs with revenues.

- At the wine production level another critical issue can be found. A certain percentage of the bulk wine produced by the involved actors – cooperatives, vertical integrated producers, wine industries – is sold onto the intermediate wine market to be transformed into the finished good for the final market. The sale of bulk wine to the wine industry or to fillers/packers can create an imbalance similar to that already described. Of course the price of bulk wine can vary on the basis of the supply, but often it is bought by big wine industries or fillers which greatly contribute to the formation of an intermediate demand of wine. So, they have a greater power than the wine producers in the setting of the price. The same exceptions already exposed can be taken into account in this context, since many cooperatives and vertically integrated producers provide for the transformation of bulk wine into finished product. But it is important to reinforce the bargaining power of those cooperatives or producers who do not complete the production process, in order to avoid that transformation costs of grape into wine remain uncovered.

By borrowing the contractual scheme from the milk sector, these problems can be solved, giving to Member States a certain flexibility. In fact the milk package (see Annex on the Milk Package for further details) allows Member States to bind the parties of the milk chain to negotiate the price of raw milk. But these agreements can also remain on a voluntary basis. At the same time it established that according to the structure of the market in each Member State, it can decide which level of the supply chain must be covered by negotiations. This can be of value for the wine sector since it is differently structured in each State. For example, if the system is well organised in cooperatives which cover most of the production, a critical element in the supply chain can be found in the intermediate market of wine and it could be useful to provide for written contracts in this phase. The opposite can happen in a fragmented production market in which there is a multitude of grape growers.

In both cases, a decisive role is to be assumed by producer organisations and Inter-branch organisations. As in the milk sector, also in that of wine, the strengthening of these existing instruments can be useful to set out the price of grapes or bulk wine and avoid damaging the weakest actors of the supply chain.

A different discourse is to be made for PDO and PGI wines. For high quality wines the localisation of production in a specific geographical area is very important and also in a liberalised market, in which there is no place for planting rights, this situation is to remain unchanged. What can change is nevertheless a possible increase in the supply side of a particular PDO or PGI wine due to a multiplication of producers in a specific area. In this scenario the solution adopted in the milk package can be useful for the wine sector: there, an enforcement of protection of cheeses benefiting from PDO or PGI has been provided. Member States are allowed to lay down, for a limited period of time (three years maximum, renewable) binding rules for the regulation of supply of the product concerned in order to adapt supply of those cheeses to demand, and contribute substantially to maintain the quality or ensure the sustainable development of the product concerned. The same market rule already operates in the wine sector (Article 68 of EU Reg. n. 479/2008) for the regulation of supply, but it could be amended to serve as a wider rule which allows interbranch organisations to plan the production of grapes to be transformed into high quality wines on a pluriannual basis, in so regulating the entry in the wine market of other actors (see, in this framework, the Annex "Regional Report: Tuscany")<sup>56</sup>. Yet, the role of IBOs is to be revalued, since, in a liberalised market, the more they will be able to plan a

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<sup>56</sup> Region Tuscany, with regional law n. 21 of 2002, has created an additional mechanism for the control of production that doubles the control of vineyards through the planting rights scheme offered by CMO, in order to allow the growth of the production of wines with PDO only if market conditions are favourable and the market equilibrium can be ensured.

regulation of supply for PDO and PGI wines on a pluriannual basis, the more damage for producers due to an excessive volatility of wine prices will be avoided, and their quality will be saved (see §4.2.1.2 - Regulatory Measures – on the importance of enforcing the role of POs and IBOs in this context).

### 4.3. Maintaining a renewed scheme of planting rights

The planting rights scheme, despite the fact it was designed as a temporary measure, has been renewed for more than thirty years, until the decision of 2008 to remove the ban on new plantings between 2015 and 2018 (up to MS). Since its introduction in 1976, the regime has executed an important role in tackling the structural wine surplus of the EU. For about four decades the measure, in association with different grubbing up programs and with the relevant contribution of the actions of withdrawal (distillations), has permitted to limit disequilibrium in the EU wine market. The scheme has certainly represented a pillar of the control of volume of supply.

In the meantime, it is controversial if the competitiveness in the EU wine industry has been affected and weakened by the excessive rigidity in implementation of the scheme by MS/Regions, that could have hindered a rapid evolution of European wine supply. Actually, the EU has acted as it was the only world player in the wine market, despite the rapid globalisation process. However, EU maintained a role of supremacy in the global arena, even if during quite a few years other new producer countries (see Chapter 3) have been taking advantage and are rapidly penetrating specific segments of the market (Giuliani, Morrison, Rabellotti, 2011).

In the current process of CAP reform after 2013, it seems interesting to focus on the possibility to reconsider the decision to remove the planting rights regime (Option 4 in Table 4.4), starting by two main considerations, that represent the principal strengths of the mechanism in force:

- its capacity to contribute to the control of production without costs for the EU budget and with some favourable effects in terms of compensation to farmers ceasing grape production and limiting the abandonment of vineyards, especially in marginal areas, with relevant phytosanitary advantages;
- the legal framework defined by EU and by MS to ensure the functioning of the scheme that has permitted experimentation with some cases of success, in potential production management also in dynamic areas of production (Chapter 2).

The proposal to confirm the planting rights regime in the future CMO for wine should pursue the objective of defining a “renewed” scheme, based on a different mechanism of functioning to overcome the most relevant inefficiencies to have emerged from the current scheme (Chapter 2) and ensure a better flexibility of the potential.

The structure of a renewed planting rights regime should be based on two pillars:

- an improved market for planting rights;
- a procedure to periodically evaluate and modify the aggregate size of the EU production potential and eventually to distribute among MS/regions additional planting rights.

A new planting right scheme should firstly focus on overcoming specific inefficiencies related to the functioning of the planting rights market up to now. Actually, regional reports (Annex 2) have cited evidence of the opportunity to enlarge the role of the planting rights market, which looks to be the main channel to acquire planting rights.



To improve the planting rights market it is necessary to consider two aspects: i) technical rules for the exchange of planting rights; b) enlargement of boundaries for the exchange of planting rights.

Concerning the planting rights exchange, it is necessary to prevent the phenomena of speculation in some countries and regions, to define more precisely the role of buyers and suppliers, to avoid the risk of fraud, to limit excessive prices differentiation (e.g. forbidding the resale of planting rights, as it is already the case in a large part of the countries) and reduce extra costs for brokerage charges.

The market of planting rights could be improved by introducing an auction mechanism (see §2.3.1), with standard rules defined by the EU. The auction system established for different sectors (e.g. carbon rights) could offer a good indication to establish a mechanism suitable for planting rights. Of course, an efficient inventory is a necessary condition to facilitate planting rights exchange.

#### **Box 4.1. - The case of auctioning of greenhouse gas emission allowances**

A scheme for greenhouse gas emission allowances trading within the Community has been established with Directive 2003/87/EC of the European Parliament and of the Council.

The main aim of the directive is to achieve of a clear abatement of greenhouse gas emissions at least cost, avoiding distortions of competition and guaranteeing a greater predictability. It has been implemented through three trading periods, the last of which starting in 2013 and lasting until 2020. This third phase will be characterised by a fundamental change from the past, since auctioning of allowances will become the rule rather than the exception. The auctioning process is predictable, in particular as regards the timing and sequencing of auctions and the estimated volumes of allowances to be made available. Given this background, the new Auctioning Regulation n. 1031/2010 (as amended by Reg. 1210/2011) provides for:

- the joint procurement between Member States and the Commission of a common platform to auction emission allowances on behalf of the Member States. It will best ensure respect of the principles of non-discrimination, transparency and simplicity, providing the best guarantees for full, fair and equitable access to the auction for every enterprise and best minimises the risk of market abuse.
- the setting out of an auction calendar each year, with the dates, bidding windows, size and other details of each auction; it will be fixed well in advance to provide certainty to the market and auctions will be held relatively frequently, in order to limit the impact of auctions on the secondary market.
- the auction format, which will be a single-round, sealed bid, uniform price auction. This is a simple auction format that facilitates participation, including by SMEs.
- the appointment, by each Member State, of an auctioneer which may be a private or a public body.
- The conduction of auctions by a regulated market authorised pursuant to EU financial markets legislation. This could either be an existing regulated carbon market exchange operating on the secondary market, an existing financial market exchange or a newly set up regulated market.
- The mechanism of auction. During a single bidding window of the auction, bidders can place any number of bids, each specifying the number of allowances they would like to buy at a given price. Directly following the closure of the bidding window, the auction platform will determine and publish the clearing price at which demand for allowances equals the number of allowances offered for sale in the auction concerned.

Successful bidders will be the ones who have placed bids for allowances at or above the clearing price. All successful bidders will pay the same price, regardless of the price they specified in their bids.

- The appointment of a single independent auction monitor for all auctions on all auction platforms, chosen through a competitive procurement procedure conducted jointly by the Commission and all Member States. In addition, the competent national authority for financial markets of the Member State in which an auction platform is located will be responsible for supervising that auction platform.

The new European Emissions Trading System (EU ETS) also provides for the centralisation of the EU ETS operations into a single European Union registry, operated by the Commission. It will replace all EU ETS registries currently hosted in the Member States, which record the holding of emission allowances and the transactions concerning those allowances, like any banking system does for money in each Member State. This change has been considered necessary in order to harmonise all national auction systems and avoid market imbalances among different platforms.

The boundaries for the exchange of planting rights have been, since a long time, a very controversial point of the current scheme. Against a general orientation of DG AGRI to allow for a free circulation of planting rights across the EU, the local administration have constrained the free circulation of planting rights limiting their entrance or exit in some regions. Nevertheless, regional reports (§2.5) have underlined the opportunity, in specific circumstances, to develop larger exchange areas for planting rights, eventually establishing an EU space for exchange. The enlargement of the exchange areas for planting rights would avoid the risks connected to unfair conditions of competitiveness determined by different rules of implementation of the scheme adopted by each MS/region; the objective is to facilitate the transfer of planting rights between regions (inter-regions). In order to facilitate the political consensus to a drastic reduction of barriers to planting right circulation, it is possible to define some specific rules. Areas which reduce their area under vine for the transfer of planting rights should obtain some privileges in obtaining new planting rights in the case of a central decision to enlarge the potential. Areas which enlarge their area under vine, because farmers import planting rights purchased on the market, should be privileged in the allocation of funds for grubbing up measures. Indeed, a new planting rights regime with less constraints to planting right circulation should be combined with an optional (up to MS) grubbing up scheme, with a mechanism similar to that established by the previous Reg. 1493/99, but with some modified funding rules.

A renovation of the planting rights scheme following the above sketched lines should be sufficient to fulfil most of the needs of EU actors in the wine industry. Anyway, to avoid the risk of rigidity for a European vineyard constrained by a planting rights scheme, it is necessary to have an efficient management system of the size of the potential, able to increase, if necessary, the amount of planting rights available on the market. It is necessary to change the perspective: from a planting rights regime addressed to limit the size of the EU vineyard to a planting rights regime addressed to control in a dynamic way the potential, giving a new role to the traditional instrument of the reserves.

An EU agency should be in charge of decisions concerning the enlargement of potential. Such decisions should be taken only on the basis of a careful evaluation of the market situation (EU level) and in the framework of a general activity of programming of production development (MS level): once an increase of production potential has been decided at the EU level, the additional planting rights should be allocated among MS and



Regions on the basis of the effective marketing capacity of single areas. In the areas asking for planting rights, subsidized up-rooting should eventually be forbidden.

In a renewed planting rights regime, the mechanism to replace the reserves should no longer play only the role of distributor of planting rights to reach specific political objectives (e. g. to support young farmers). The reserve should when necessary be mainly oriented at the management of the increase of potential.

To this end, it appears strategic to ensure the availability of reliable data (production, consumption, internal and external market quotas, prices, evolution of preferences) and the production of periodical analysis about market evolution, on which should be justified the new authorizations. In addition to market data, data about the dimension and the characteristic of production potential in single MS are crucial. In particular, in the current scheme the management of an inventory has produced inefficiencies in some MS (INNOVA, 2005). Then the renewal of a mechanism of control of production potential should be deeply based on the systematic collection of reliable data. This in addition with the more recent instruments of knowledge of territories (SIG/GPS technologies) could permit the design of a clear picture of European vineyards<sup>57</sup>. The distribution of additional planting rights among MS/regions should be conditioned by the status of the inventory. Only MS/regions which have an efficient inventory should receive additional planting rights.

As already pointed out, complete and updated documentation of the existing potential is crucial. The improvement of vineyards registers should permit the reduction of some administrative costs connected with the management of the scheme (allocation, transfer, replanting) and the involvement of different administrative bodies responsible in each MS. In particular, the adoption of a homogenous system of collecting data should avoid conflicts arising from different approaches used to measure the surface of plantings.

In addition, a more effective inventory could also offer a contribution in continuing actions against unlawful planting rights, which exacerbate the phenomena of market disequilibrium. In essence, a more effective register, in force after 2015, matched with information about market situation should permit a better control of wine supply, putting in relation the data of the vine register with the planting rights distribution.

#### **4.4. The strategic role of reliable information**

In both options considered (liberalisation and maintenance of planting rights), for the fulfilment of the CMO objectives the adoption appears necessary by EU and MS of measures of management of:

- the evolution of production potential (dimension, selection of areas);
- the dimension (volumes) and the composition (typologies) of wine production;
- the strategies for promotion and sale of EU wines (analysis of the evolution of consumptions and of the internal and external markets).

To these ends, the availability of well-timed and reliable information about some strategic figures and variables represents an essential prerequisite.

The collection of homogenous data from each MS could permit the production, at a European and national level, of analysis, provisional study, impact assessment study and reports of great relevance for the tailoring of policies and for the reinforcement of the role and of the competitive position of EU viticulture and wine production in the global arena.

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<sup>57</sup> In some regions (mountains, heroic viticulture) it might be, however, difficult to obtain precise measures about the surface planted.

## 5. CONCLUSIONS

### KEY FINDINGS

- Most of the expressed positions are in favour of maintaining the system of planting rights for all types of wine, stressing the negative consequences (economic, social and environmental) of the abolition of the PR scheme.
- The expected advantages of the liberalisation are related to cost reduction and supply flexibility. The risk is related with oversupply, which can be mitigated using risk management tools and a more active role of IBOs and PO. Another risk of the liberalisation is related to the possibility of misleading signals to the market.
- The expected advantages of the maintenance of planting rights regime are related to supply control, stability of the competitive position of actors currently present in the arena and prevention of risks for the environmental and socioeconomic stability of marginal areas. But the maintenance of planting rights regime could weaken the reactivity of the industry.
- The implementation of countermeasures defined to mitigate risks linked with liberalisation would determine deep changes in CMO organisation. It would require a substantial effort in policy design.
- The implementation of countermeasures defined to mitigate risks linked with the maintenance of a planting rights regime is rather simple, but it is necessary to stress that it is possible to envisage some difficulties related to the objective complexity of the decisions related to changes in potential size and to the definition of dimension of planting rights exchange areas.
- Anyway, also in the case of maintenance of the planting rights regime it is recommended the implementation of a large part of the actions defined as countermeasures in case of liberalisation.

### 5.1. Preliminary remarks

From the previous four chapters of this Study it is possible to summarize some results that give some detailed indication of how the future policy action for the wine sector should be organised (see §5.3) in the case of:

- liberalisation of vine plantation, or
- maintenance of the planting rights regime.

**From Task 1** - The EU wine industry is complex in its structure and in the supply composition, as such supply is targeted to different demand/price segments.

**From Task 2** - The implementation of the planting rights scheme has been very different among MS, determining a wide range of situations. Anyway, the interviewed stakeholders almost unanimously answered that planting rights have had little influence in the development of dynamic firms. So the scheme has only added bureaucratic costs and monetary spending.

Direct costs and intermediation costs have been very different among areas, depending on the bureaucratic efficiency of the administration and the market transparency.

The direct and indirect costs of planting rights search and acquisition may have determined specific difficulties for smaller firms.

In some cases (Germany) the scheme has been implemented determining a specific segmentation of the planting rights market, as it was not possible to sell a planting right linked to a sloped vineyard for a plantation on the plane.

**From task 3** - The study has focused on four main issues: the determinants of grapevine area, the profitability of grapevine growing, the experience of Third countries, the definition of different scenarios. In particular:

1. The quantitative analysis has pointed out:
  - a. The reaction of the size of potential to price signals is in aggregate rather slow and lagged (Nerlove model). This means that the risk of rapid changes in production potential is low and proper market information could prevent unnecessary plantation, especially if the value of land determines a high plantation cost;
  - b. Nevertheless the wine and grape producing farms show a higher profitability with respect to other types of farms in almost all studied situation (FADN data analysis). This means that there could exist a latent pressure towards wine and grape production; such pressure depends on the relative price.
2. The analysis of third countries' experience demonstrates that the risk of overproduction is latent in wine markets and policies sending misleading signals may determine problems. Of course the capability of a supply systems to sale in the market at a reasonably price depends on the specific advantage of the system itself, the strength of market relations and the influence of exchange rates. During the last period, Australia is experiencing a surplus (and increases imports), and in the meantime in Italy and Spain prices of common wines are increasing. The lessons are that it is wise to use prudence.
3. The scenario analysis explain that considering the unused planting rights, planting rights in the reserve and yield management, the current size of potential should allow for an increase of supply of around 15%.

**From task 4** - there are no elements of incoherence between the planting rights regime and the common principles for CAP, the EU international obligations, the EU policy concerning the social aspects of alcohol consumption, the policy concerning PDO and PGI wines and the others measures in the CMO.

The analysis of CMO implementation has showed a difficulty of implementation of specific new measures introduced in 2008 and a still significant relevance of the measures being phased out. Also the distribution of resources, up to MS, has favoured the traditional measures specifically tailored for the wine sector, as witnessed by the small role of the single payment scheme.

**Other key issues** - Before the discussion of the changes in the current regulation according to the two options analysed, it is important to clarify some key issues.

The first is that the policy concerning the social aspects of alcohol consumption in almost all countries inside and outside the EU determines relevant limitations to wine advertising and sale. This would determine an asymmetric situation in case of planting rights liberalisation

because the freedom to expand supply would not be linked with the freedom to promote and to sell wine.

The second is that it is important to separate two issues that in many cases are confused: the general issue of planting rights regulation and the issue of PDO wine supply regulation. Although the regulation concerning the supply control already often operated by IBO should be improved, in almost all prestigious territories systems are applied to control PDO wine supply via constraints on yields and enrolment of vineyards in the production potential of the PDO itself. The consequences of this practice is that there are two different markets in the EU: 1) the planting rights market descending from EU rules on production potential; 2) and the market of rights to produce a specific PDO wine. In correspondence of the latter, the prices of the plantings rights are usually higher (see Chapter 2). The already existing possibility to regulate the PDO wine supply does not imply that the issue of (standard) planting rights liberalisation is indifferent for PDO wines. Indeed, planting rights liberalisation should not influence the concurrence inside producers of a regulated PDO wine, but could influence the competitive relationships between a specific PDO wine and other wines (especially PGI and varietal wines). Such influence could be quite important with the new regulation about labelling.

## 5.2. A review of the current debate

Many actors of the wine industry have taken part in the debate on the planting rights issues but the outcome of the discussion is still characterized by only general positions. Both those in favour of liberalization and those who are favourable to the maintenance of planting rights claim that each choice has to be adopted in the framework of a more developed set of measures; but such a set of measures has not been clearly indicated with regard to any of the two options under discussion.

This section presents an overview of the positions of the major actors in the current debate about liberalization of planting rights. More specifically, this paragraph highlights the points of view of the Institutions and Organisations in order to put in evidence the specific proposals connected with the request to maintain or to abolish the planting rights scheme, with reference to the introduction of new measures or the revision/strengthening of already existing instruments (see Table 5.1).

**Reg. 479/2008 (Reg. 1234/2007)** - According to the EC, the transitional prohibition on new plantings has had some effect on the balance between supply and demand in the wine market but "it has at the same time created an obstacle for competitive producers who wish to respond flexibly to increased demand" (Recital n. 58). The Commission states that prohibition on new plantings should be definitely lifted in order to permit competitive producers to respond freely to market conditions. "As a market balance has not yet been found, and as the accompanying measures such as the grubbing-up scheme need time to take effect" (Recital n. 59), the system of planting rights will be abolished at EU level by the end of 2015 (with the possibility to keep them on at national level until 2018).

Regarding the measures for supply control, the new CMO confirms the role of POs and IBOs, without introducing significant changes compared to the previous Regulation approved in 1999.

**Letters of MS** - In the spring of 2011, the representative of 12 Member State have signed a letter aimed at stimulating the European institutions to reconsider the decision about the liberalisation of planting rights, citing as evidence a list of possible risks connected to the abandonment of the current scheme: a new over production; a further depression of the

less favoured areas in which grape growing plays a relevant role; the possible abandonment of small farms; the negative impact on the reputation of PDO; a progressive standardization of production; an excessive industrialization of growing methods, considering as a preferable option the maintenance of a mechanism of control of production potential. These MS are in favour of continuing a planting rights regime for all European Union countries and all categories of wines beyond 2015.

**Rapport Voutrin** – According to the Report, the liberalisation of planting rights will allow the planting of new vineyards for wines without a geographical indication inside, or surrounding, the area of some PDOs, so creating the risk of misappropriation of notoriety. The most significant effect could be an increase of the wine growers. In fact, for many agricultural producers the possibility of wine production could seem very attractive, also to respond to the crisis in their sectors.

The Report states that regulation does not prevent the development of markets and the entrance of new actors. Therefore the report suggests retaining the planting rights regime with the possibility for each Member State to establish a more complete regulation adapted to its situation (with exceptions for types of vineyards). In such a system of regulation it seems essential to improve interbranch management of planting rights.

**COPA-COGECA** – According to COPA-COGECA, the planting rights scheme has helped to maintain a balance between supply and demand. Thanks to planting rights, European farmers have been able to add value to their production. This system also allowed the preservation of the family farm for economic and social purposes.

In particular, effects of the elimination of this regime could be economic (surplus production with negative effects on prices and farmers' income), social (transition from a family-type to an industrial viticulture, worsening the imbalance in the food chain), environmental (significant transfers between different areas resulting in a loss of identity in rural areas) and financial (in the event of another crisis due to oversupply the Commission should provide financial assistance while the system of planting rights does not entail any cost to the CAP budget).

Therefore, COPA-COGECA stresses the need to maintain an European planting rights regime for all types of wine.

The study conducted by the working group "wine" of COPA-COGECA, after consultation with the European agricultural organizations, stresses the importance of POs as a tool in governing agricultural production as well as in planning and enhancing supply. POs should carry out additional roles such as activities in order to adapt demand and supply also in qualitative terms.

**EFOW** – According to EFOW, one immediate consequence of the liberalisation of planting rights will be an increase in production and an imbalance between supply and demand. Wine with a protected designation of origin (PDO) could see their production triple as there are over 1 million hectares available for planting in the areas concerned within the EU. As for wines with a protected geographical indication (PGI), given the lack of parcels boundaries and the large amount of surfaces not planted, production could also increase exponentially. Wines without geographical indication face the same worrying prospect as production could increase in mixed zones, near the areas where PDO and PGI wines are produced, but also in regions where there are currently no vineyards.

The liberalisation of planting rights would have dramatic long-term consequences for the sector: on the landscapes, on the environment (biodiversity, soil erosion) and country planning, on tourism, on employment and on the image of wine. Therefore, it is crucial to

preserve planting rights for all wines in the context of the CAP reform.

**Federdoc (IT)** – According to Federdoc, the abolition of planting rights could cause an increase of wine growers with a possible decrease in their incomes. The extension of vineyards could create a viticulture in plain areas taking advantage of the higher yields of these vineyards. Inside DO wine-growing areas the impact of liberalization could have disastrous effects on the balance with the loss of market value for many designations. The system of planting rights has prevented the excesses of plantings, playing its role in supply regulation. Moreover, the system of planting rights does not entail an expenditure for the European Union.

Therefore, Federdoc highlights the importance of a set of rules (applied to all types of vineyards: PDO, PGI, wines without geographical origin), valid throughout Europe and based on the ban of new plantings. The system of prohibitions should be open to future quotas (national reserves) for types of vineyard, allowing adaptation to markets. The production potential management should be entrusted to the interbranch in concert with the regions, within market planes.

**CEEV** – According to CEEV, the total ban of new planting at the EU level does not reflect the extraordinary diversity of European vineyards and slows down the dynamism of operators in the wine sector.

By consolidating supporting measures (such as investments, promotion and restructuring, strengthening the role of wine professional organisations, and maintaining provisions regarding labelling and oenological practices), the proposed Single CMO provides a legal framework allowing the sector to enhance its competitiveness and thereby keep on recapturing market shares and maintain the trade dynamics, especially for exports.

According to CEEV, an in-depth examination is necessary on the ways of the economic regulation of the supply chain, for a better balance between supply and consumer demand. CEEV stands out against the maintenance of a generalised mechanism of a ban on planting new vineyards, indiscriminately applied in the EU. CEEV suggests the possibility to decentralize the management of production potential within the supply chain, respecting the principle of subsidiarity and involving all the actors.

**AREV** – A study commissioned by AREV reveals that the size of the vineyard is not necessarily synonymous with economies of scale and growth in terms of income. Furthermore the study stresses that the price of planting rights does not significantly increase the cost of creating new vineyards.

“With the elimination of planting rights the environments and landscapes of the winegrowing regions will inevitably be affected. But even if the economists are unable to put a figure to this impact, they are able to state that relocation towards the plains will begin, and eventually will damage wine tourism and its burgeoning economy, as well as the competitiveness of the vineyards located in the mountains or on steep slopes – with all the resulting environmental consequences.” So the production potential must be controlled for all categories of wines.

**Table 5.1. - A review of positions in the debate**

Documents/ Objectives	Liberalisation	Confirmation of PR scheme	Renew of PR scheme	Measures for supply control (POs-IBOs)	New additional measures
Reg. 479/2008 (Reg.1234/2007)					
Letters of MS					
Rapport Voutrin					
COPA-COGECA					
EFOW					
Federdoc (IT)					
CEEV					
AREV					

Summarising, most of the organisations are in favour of maintaining the system of planting rights for all types of wine. These organisations stress the negative consequences (economic, social and environmental) of the abolition of the scheme, pointing out that the current system does not entail any cost to the CAP budget. Some organisations highlight the importance of a different application of the planting rights scheme:

- for MS, allowing each Member State to establish a more complete regulation adapted to its context;
- for types of production/vineyard, allowing a better adaptation of the production to the market.

Instead, CEEV supports the decision to remove a single and generalized mechanism banning new planting, proposing a decentralization of the management of production potential.

Most of the organisations stress the need for supply control measures, assigning greater importance to the role of POs or IBOs in the management of the production potential (in accordance with national and local institutions).

### 5.3. Options comparison

The current debate offers very different points of view, each supported by reasonable arguments. As a matter of fact the wine market is so segmented, the wine industry so complex and the evolution of the demand so unpredictable that it is impossible to envisage a model from which to derive a clearly identified “optimal decision” suitable for all actors and wines (PDO, PGI, varietal and common).

Nevertheless, on the basis of the statements defined in the quoted documents, it is possible to point out both the advantages and the risks of the two different options under discussion and, on the basis of the results of the analyses previously described:

- Asses the level of risk connected to each underlined risk;
- Suggest specific actions to counterbalance the more relevant negative consequences;



- Stress the influence that different choices may produce on the evolution of the EU wine industry;
- Put in evidence the implications in terms of reforming the current CMO for the wine sector.

The results of such an exercise, summarised in Table 5.2, indicate that the two options have different implications and address the objectives of the EU wine policy in a different way. Therefore, the decision to follow one or the other can be assumed only politically, on the basis of a scale of priorities which has to be politically shared.



**Table 5.2. - Evaluations and implications of the two considered options**

Options	Options evaluations				Option implications	
	<i>Expected advantages</i>	<i>Expected risk</i>	<i>Risk level</i>	<i>Countermeasures</i>	<i>Impact on the industry</i>	<i>Policy making</i>
<b>Liberalisation</b>	Cost reduction	Loss of control on the production potential	High if abolished the Inventory	Maintenance of Inventory	Dinamisation of the EU wine supply system giving space to the new option in wine presentation linked with the option to indicate variety and vintage year in non PDO/PGI wines	Complex implementation of countermeasures: <b>deep changes in CMO</b>
	Higher supply reaction which should enable the EU wine supply to become more competitive in the low price wine segments	Oversupply	Moderate	a) Risk management tools b) IBO supply self reduction		
		Misleading signals to the market	High	Information		
		Weakening of already established competitive position of "non excellence and non niche actors"	High	a) Measures to support weaker grapegrowers and wine maker b) Contracts c) IBO supply management		
		Weakening of environmental and socioeconomic stability in marginal areas	Moderate	Specific measures of rural development and a specific regime of single payment		
<b>Continuation of planting right regime</b>	Preventing oversupply	Weakening of the reactiveness of the industry	High	a) Management of potential b) Increase of information in the market	Protection of the current structure of the industry and slowing of the restructuring of the low price wine supply system	Rather simple implementation of countermeasures but difficulties in assuming decisions and complexity of related political bargaining concerning: a) changes in potential production size b) dimension of planting right exchange areas
	Defence of current structure of the industry	Increasing production cost	High/Very high	Increase of the planting right market efficiency		
	Environmental and socioeconomic stability in marginal areas					

### 5.3.1. Advantages, expected risks and countermeasures for the liberalisation

#### *Advantages*

The expected advantages of the liberalisation are related to costs and supply flexibility. It is expected that a cost reduction may be reached via the elimination of the direct and indirect costs for planting rights search and acquisition (§2.5) and eventually the economies of scale linked with more suitable sizes of vineyards (§3.2). It is expected that without the constraints derived by the planting right regime the wine supply of single companies and, in aggregate, of the EU wine industry could more easily catch the market opportunities.

#### *Risk and countermeasures*

***Loss of control of production potential*** - The abolishment of the planting rights regime could determine the dismantling of inventory (option up to the Commission in the proposal under discussion; see §4.2.1.3) as it might be thought no longer necessary. As indicated in Chapter 4, in this case the EU would lose a useful tool to monitor the quantitative and qualitative evolution of potential and for predicting supply evolution. This risk can be avoided by maintaining the inventory after 2015 (2018).

***Oversupply*** - The abolishment of the constraint on the potential determines a risk of oversupply. The recent experiences of new players demonstrate that a national supply system cannot be self regulated (see §3.3) and the analysis of FADN data demonstrates a good economic performance of wine and vine farms compared to other crops (see §3.2). Nevertheless the risk level looks moderate because the slow reaction of potential to price signals (see §3.1). The risk related with conjunctural oversupply can be mitigated using risk management tools (see §4.2.1.1) and risk related with structural oversupply can be mitigated with a self reduction of supply operated by IBOs and PO (see §4.2.1.2).

More generally, the risk of oversupply could be mitigated by defining rules for new plantation with the objective to guarantee an adequate level of quality. In this way, it should be possible to prevent speculations that can give some advantage in the short run to single actors but in the medium run determine the accumulation of non-marketable stocks. Such rules could be defined by MS or Regions (see §4.2.1.3).

***Misleading signals to the market*** - The liberalisation could be interpreted by operators as a message of the EU which would encourage investment in new vineyard, starting a process which could result in an excessive increase of supply. This risk can be mitigated with a pervasive information campaign about the situation of the market.

***Weakening of already established competitive position of non excellence or non niche actors*** - The liberalisation objectively may reduce the entry barrier in the sector and may facilitate the reorganisation of supply chains of some actors already present in the sector (§3.4); the result is a modification of individual competitive advantage of players in the competitive arena. In such a situation, the weaker players which are not able to adopt individual strategies of monopolistic concurrency are exposed to serious risks of erosion of their competitive advantage. Such risk is exacerbated by the possibility of a new form of competition based on varietals wines. Such a new EU wine category could be used not only to supply cheap wines but also premium wines, challenging PDO/PGI wines with a weak positioning.

The risks linked with the changes in the competitive advantage of actors can be mitigated by the adoption of an integrated set of measures: measures to support weaker grape growers and wine maker, eventually facilitating their access to funds for restructuring, promotion, investments and measures in the Rural Development Programmes (see

§4.2.1.1), contracts to stabilise relations in the inter-industry markets (see §4.2.2.1), and strategic management of supply by IBOs (see §4.2.1.2). Here the management of supply is addressed to support the positioning of the wines of the IBO, in a perspective of building the brand equity of the collective brand, with positive consequences for the competitive advantage of IBO members.

***Weakening of environmental and socioeconomic stability of marginal area*** - The impact of liberalisation on the competitive scenario of the wine market can in principle influence the competitive advantage of grape and wine producers located in marginal areas (see §3.4). But the risk of erosion of their competitive advantage as a direct consequence of liberalisation is rather low, as their permanence on the market in the majority of cases depends on the capability to become niche producers. Anyway, the moderate risk following by liberalisation can be mitigated with facilitated access to support via structural measures (see above) and a specific implementation of the single payments.

### **5.3.2. Advantages, expected risks and countermeasures for the maintenance of Planting rights regime**

#### ***Advantages***

The expected advantages of the maintenance of the planting rights regime are related to supply control, stability of the competitive position of actors currently present in the competitive arena and prevention of risks for the environmental and socioeconomic stability of marginal areas.

#### ***Risk and countermeasures***

***Weakening of the reactivity of the industry*** - The constraint on the dimension of the production potential and the difficulties in the circulation of planting rights, which are particularly serious in some regions (see §2.3.1), can hamper the adaptation of EU wine supply to the qualitative changes of the demand over the world. Such a risk looks to have been exacerbated during the last months, when at the same time an important player as Australia is facing problems of overproduction and in larger European producing countries, despite large stocks, wine prices are increasing as a consequence of a shortage situation. As a matter of fact, EU wines are showing a high competitiveness also in the mass market, contradicting the very widespread opinion that the EU cannot offer cost effective wine products, and that it has to compete mainly in the premium segment. Such risk can be avoided inside a renewed planting rights regime, making easier the full exploitation of potential and introducing the possibility to manage the dimension of the potential (see §4.3). Indeed, the already existent potential is largely under utilized (see §3.5), like the existing wine stocks, and via a more efficient circulation of information it should be easier to transfer planting rights and/or wine batches to actors who need them. Moreover, the information derived from prices and quantities of exchanged planting rights can give some useful information concerning the consistency of potential with producers needs in different areas.

***Increasing costs*** - The current planting rights regime, characterized by many constraints to a free circulation and by the absence of an official system regulating the exchanges, may determine an increase of costs for the acquisition of planting rights, so frequently costs for searching and intermediation costs are equal (or higher) than the price of the planting rights received by the seller (see §2.5). Of course the probability of a cost increase is proportionally higher when the planting right demand increases. The risk of an increase of planting rights cost can be mitigated, following two paths: a) the intermediation costs can be drastically reduced making the functioning of the planting rights market more efficient,

for example adopting an auction system (see Box 4.1); b) the pure cost of the planting rights can be reduced managing their availability through the dimension of the areas within which the rights can be traded and the dimension of the potential inside each area (see above).

### 5.3.3. Options implication

The implementation of the two options has different implications in terms of impact on the EU wine industry and changes in the structure of the EU wine policies.

#### *Impact on the industry*

**The liberalisation** should determine an easier evolution of EU wine supply, giving more space to the new options in wine presentation linked with the possibility to indicate variety and vintage year in non PDO/PGI wines. The liberalisation privileges a new positioning of the EU supply, no longer based exclusively on wines presented as linked to a territory (PDO and PGI), but characterised by a dual concept of quality. The liberalisation, if applied with the countermeasures above indicated, should not have a dramatic impact on the actors already present, nor on the consistency of supply with the demand for EU wine, but of course any reorganisation process determines some selection processes. In terms of compliance with the CMO reform in 2008, the liberalisation looks to comply with the "competitiveness objective" as regard the enlargement of market quotas. The compliance with the other objectives (search of higher quality and socioeconomic stability of the sector) is dependent on the accompanying measures adopted.

**The maintenance of a planting rights regime** should protect the current structure of the industry, privileging the traditional shape of the EU wine supply. The maintenance of a planting rights regime, if accompanied by the countermeasures indicated above, should not hamper the evolution of EU wine supply, eventually accompanied by a larger production of varietals wines, but of course the reorganisation processes will be slower. In terms of compliance with the CMO reform of 2008, the maintenance of a planting rights regime looks to comply with the "search for higher quality" and the "socioeconomic stability of the sector". The compliance with the other objective (enlargement of market quotas) is dependent on the changes in the accompanying measures.

#### *Implication for policy making*

**The implementation of countermeasures defined to mitigate risks linked with liberalisation would determine deep changes in CMO organisation.** It would require a substantial effort in policy design and in the effective and coordinated management of the different tools in each MS/Region.

**The implementation of countermeasures defined to mitigate risks linked with the maintenance of a planting rights regime is rather simple, but it is necessary to stress that it is possible to envisage some difficulties related to the objective complexity of the decisions related to changes in potential size and to the definition of dimension of planting rights exchange areas;** in addition the political bargaining among many stakeholders could make the decision process difficult.

Anyway, also in the case of maintenance of the planting rights regime, it is recommended to implement a large part of the actions defined as countermeasures in the case of liberalisation (see §4.2 and Table 5.2).



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## ANNEX I: EVOLUTION OF WINE MARKETS

The seven tables attached show the evolution of world wine markets in the most recent decade, from 2000 to 2010, according to figures obtained from the OIV.

The first one includes macro magnitudes – world data – on surface, grape and wine production, consumption, imports and exports. According to these figures, surface has remained relatively stable decreasing at a pace of -0.4% per annum, grape production declined at a slower pace of -0.03% and wine production was down by 20 million hectolitre what means an average decline of 0.75% per annum. On the demand side, world wine consumption grew by 10 million hectolitre in 10 years up to 236.3 million at a pace of 0.5% p.a.. Again and as it has been in the last decades, wine internationally traded – both imports and exports – have grown at a faster pace of 4.3% and 4.4% respectively, up to 9.9 million hectolitre, what means close to 40% of total consumption.

The other six tables show the way 10 major world wine producers behaved as regards to the same magnitudes. Information is given in the same way for five top European producers (Spain, France, Italy, Germany and Portugal) and five major non-European (USA, Argentina, Chile, Australia and South Africa), with both, detailed and group figures.

Thus, the reduction of vineyards took place mainly in the EU zone where 0.34 million hectares were lost, while surface grew among non European producers (with the exception of the USA) although at a very reduced pace of 0.7% per annum.

Similarly, the overall reduction on world wine production between 2000 and 2010 of almost 20 million litre was due to the larger reduction among European producers of 29.7 million (with the exception of Portugal), slightly compensated by an increase in non-European producers of 9.4 million (again in this case, with the exception of the USA).

The evolution of both vineyards and wine production provokes a similar effect on yields<sup>58</sup>. World wine yields declined at an average rate of -0.4% down to 34.4 hectolitres by hectare. However, such decline took place mainly among European producers which declined of 7.2 hectolitres down to an average for the five countries of 49.3 hlt/ha. In the same period, yields in the group of non-European producers grew by 6.9 hectolitres up to an average of 57.8 hlt/ha.

As regards to wine consumption, only the European producers and the USA are heavy consumers of the wine they produce, but the 10 countries considered only account for 58% of total world consumption. And they also evolved very differently during this period. Thus, world increase of 10.7 mhl up to 236.6 took place despite the decline by 14.9 mhl among European producers (with the exception of Germany). On the other hand, non-European major producers increased their consumption of wine by a total of 5 million hltrs, led by the USA and Australia and despite the fall in Argentina. In the case of consumption, though, the larger increase in wine consumption took place outside the major producers – whether European or not European -. Countries not included among the largest world producers (show as “others”) account for 41.6% of total consumption and grew by 20.6 million hltrs up to 98.4 million. In other words, world wine consumption is growing and growing faster in countries which are not large producers.

<sup>58</sup> Here considered as total wine production divide by total vineyard surface. Considering that total vineyard includes surfaces devoted to table grape, it is not surprising the average small yield of 34.4 hectolitres per hectare, which is much larger for wine producing countries as those considered in the analysis.



Major producers are even less important as a whole as world wine importers. The 10 countries considered account for only 40% of total imports (despite large purchase of bulk wine). In this case, though, both European and non-European producers behaved in a similar way. Both groups increased their imports by 5.8 and 5.6 million hltrs respectively, although these figures represented an average growth of 2.8% per annum for the former and 8% for the latter, especially due to the growing importance of the USA as wine importer.

Finally, the direction of both groups as far as exports are concerned was also similar but at very different growth rates. These 10 countries account for 90% of world wine exports, divided into 62% for the European and 28% for the non-European. However, the former group lost 10 percentage points in 10 years, down from representing a 70.8% of total world exports. During the period, both groups grew by 14.8 and 15.2 million hltrs respectively which represented, however, average growth rates of 3% p.a. and 9.2% p.a. for each.

Putting together all these figures, thus, we find that:

- The world of wine is really a game among very few large players, with 10 of them accounting for 55% of total surface, 78% of total wine production, 59% of total consumption, only 40% of wine world imports, but 90% of total wine exports.
- With exceptions, two major and clear groups may be distinguished, those being the five major European producers and the largest non-European.
- The EU group has been responsible in the last decade for most of the reduction in vineyard surface, consumption, wine yields and wine consumption and has grown, but at a slower pace than the non-European, both in imports and exports of wine.
- On the other side, the largest non-European producers, with different conditions of production, different approaches to the wine business and different needs, have slightly increased their surface and wine production (except for the USA), obtained larger yields, increased their consumption of wine (except for Argentina) and grew both as importers (especially in the case of the USA) and exporters at a faster pace than the Europeans.
- During this 10-year period, probably the most important factor has been the decline of wine consumption in EU larger producers (with the exception of Germany) by 14.9 mhl down to 89.2 million. But this decline has been over-compensated by the reduction of 30 million hltrs in wine production to 137.7 million.

If this analysis is to be correct, the major conclusion would be that the decline in domestic consumption among the largest European producers has led to a larger reduction in vineyard surface, yields and wine production, instead of being compensated by more exports. However, in a world in which wine consumption is growing, especially among non-producing countries, the EU objective has to be to, at least, keep or even enlarge our market share. It seems, thus, that non-European producers have been more efficient than traditional EU wine countries at looking at the market, taking into account the changes that were taking place in world consumption and adapting to those changes. It also seems that EU traditional producers relied more on their domestic markets and, when these markets started to decline, the reaction was to produce less wine, instead of looking for new consumers. Consumption is declining in traditional producers but not at a world level. What would then be the correct reaction of such producers: to produce less and less in order to adapt to their lower demand or to keep production and conquer new consumers? An optimistic approach would recommend to, first, take account of real changes occurring at world level and, then, profit from new increases in world consumption where they take place.

Table I.1. - World wine sector - macro magnitudes

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% chg. 10 - 09
		provisional previsión											
World surface of vineyard	(Mill. ha)	7.88	7.92	7.96	7.95	7.92	7.93	7.81	7.75	7.71	7.62	7.55	-0.07
	Var. en %		0.6%	0.4%	0.0%	-0.4%	0.1%	-1.5%	-0.7%	-0.5%	-1.2%	-0.9%	-0.85%
World grape production	(Mill. qs)	647.12	610.32	618.97	631.56	671.30	666.48	667.51	665.22	659.73	675.30	644.91	-30.40
	Var. en %		-5.7%	1.4%	2.0%	6.3%	-0.7%	0.2%	-0.3%	-0.8%	2.4%	-4.5%	-4.50%
World wine production	(Mill. hltr)	280.40	265.70	257.10	264.10	296.60	279.90	282.70	266.10	268.10	271.20	268.80	-2.40
	Var. en %		-5.2%	-3.2%	2.7%	12.3%	-5.6%	1.0%	-5.9%	0.8%	1.2%	-0.9%	-0.88%
World wine consumption	(Mill. hltr)	225.60	227.50	230.00	237.40	239.00	238.40	244.00	249.20	245.20	236.50	236.30	-0.20
	Var. en %		0.8%	1.1%	3.2%	0.7%	-0.3%	2.3%	2.1%	-1.6%	-3.5%	-0.1%	-0.08%
World wine imports	(Mill. hltr)	57.03	61.18	65.04	68.94	74.05	77.53	80.37	85.00	84.09	83.80	86.60	2.80
	Var. en %		7.3%	6.3%	6.0%	7.4%	4.7%	3.7%	5.8%	-1.1%	-0.3%	3.3%	3.34%
World wine exports	(Mill. hltr)	60.38	64.58	67.31	72.22	76.98	79.70	84.60	89.40	89.90	87.00	92.90	5.90
	Var. en %		6.9%	4.2%	7.3%	6.6%	3.5%	6.1%	5.7%	0.6%	-3.2%	6.8%	6.78%

Source: data O.I.V.; elaboration: OEMV; Latest up date: Dec. 7, 2011.

**Table I.2. - Surface of vineyard**

000 Has															Change 2000 to 2010				
Countries	% on total 2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
															previsión				
Spain	15.7%	1,229	1,211	1,202	1,207	1,200	1,180	1,174	1,169	1,165	1,113	1,082	14.3%	40.4%	-147	-12.0%	-10.1%		
France	11.6%	907	900	898	888	889	895	887	867	852	837	825	10.9%		-82	-9.0%			
Italy	11.6%	908	892	872	862	849	842	844	838	825	812	798	10.6%		-110	-12.1%			
Germany	1.3%	104	103	102	102	102	102	102	102	102	102	102	1.4%		-2	-1.9%			
Portugal	3.1%	246	248	249	249	247	248	249	248	246	244	243	3.2%		-3	-1.2%			
															-344				
USA	5.2%	412	426	415	415	398	399	399	397	398	398	398	5.3%	14.9%	-14	-3.4%	7.2%		
Argentina	2.6%	201	204	208	211	213	219	223	226	226	228	228	3.0%		27	13.4%			
Chile	2.2%	174	181	184	185	189	193	195	196	198	199	200	2.6%		26	14.9%			
South África	1.6%	124	126	129	132	133	134	134	133	132	132	131	1.7%		7	5.6%			
Australia	1.8%	140	148	159	157	164	167	169	174	173	176	170	2.3%		30	21.4%			
															76				
Other	43.4%	43.4%	3,403	3,436	3,462	3,479	3,447	3,427	3,421	3,399	3,390	3,374	3,373	44.7%	44.7%	-30	-30	-0.9%	-0.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>7,848</b>	<b>7,875</b>	<b>7,880</b>	<b>7,887</b>	<b>7,831</b>	<b>7,806</b>	<b>7,797</b>	<b>7,749</b>	<b>7,707</b>	<b>7,615</b>	<b>7,550</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-298</b>	<b>-298</b>	<b>-3.8%</b>	<b>-3.8%</b>

Table I.3. - Production of wine

000 Hltrs															Change 2000 to 2010				
Countries	% on total 2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
															previsión				
Spain	59.8%	14.9%	41,692	30,500	33,478	41,843	42,988	37,808	38,137	34,755	35,913	35,166	33,999	13.1%	53.0%	-7,693	-29,668	-18.5%	-17.7%
France		20.6%	57,541	53,389	50,353	46,360	57,386	52,105	52,127	45,672	41,640	46,361	44,963	17.3%		-12,578		-21.9%	
Italy		18.4%	51,620	52,293	44,604	44,086	49,935	50,566	52,036	45,981	46,970	47,450	44,840	17.2%		-6,780		-13.1%	
Germany		3.5%	9,852	8,891	9,885	8,191	10,007	9,153	8,916	10,261	9,991	9,139	7,185	2.8%		-2,667		-27.1%	
Portugal		2.4%	6,710	7,789	6,677	7,340	7,481	7,266	7,542	6,074	5,595	5,868	6,760	2.6%		50		0.7%	
USA	19.9%	7.7%	21,500	19,200	20,300	19,500	20,109	22,888	19,440	19,870	19,330	21,960	19,620	7.5%	25.1%	-1,880	9,447	-8.7%	17.0%
Argentina		4.5%	12,537	15,835	12,695	13,225	15,464	15,222	15,396	15,050	14,680	12,135	16,250	6.3%		3,713		29.6%	
Chile		2.4%	6,674	5,658	5,623	6,682	6,301	7,886	8,449	8,280	8,680	10,093	8,844	3.4%		2,170		32.5%	
South África		2.5%	6,949	6,471	7,189	8,853	9,279	8,406	9,410	9,780	10,165	9,986	9,217	3.5%		2,268		32.6%	
Australia		2.9%	8,064	10,347	11,509	10,194	14,680	14,300	14,260	9,610	12,448	11,710	11,240	4.3%		3,176		39.4%	
Other	20.3%	20.3%	56,839	56,268	55,551	58,456	64,540	54,300	57,387	60,767	62,688	61,332	57,082	22.0%	22.0%	243	243	0.4%	0.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>279,978</b>	<b>266,641</b>	<b>257,864</b>	<b>264,730</b>	<b>298,170</b>	<b>279,900</b>	<b>283,100</b>	<b>266,100</b>	<b>268,100</b>	<b>271,200</b>	<b>260,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-19,978</b>	<b>-19,978</b>	<b>-7.1%</b>	<b>-7.1%</b>

**Table I.4. - Wine yields**

Hltrs / ha															Change 2000 to 2010				
Countries	000 Ha (avg)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
previsión																			
Spain	154.9%	95.1%	33.9	25.2	27.9	34.7	35.8	32.0	32.5	29.7	30.8	31.6	31.4	91.2%	139.6%	-2.5		-7.4%	-8.4%
France		177.8%	63.4	59.3	56.1	52.2	64.6	58.2	58.8	52.7	48.9	55.4	54.5	158.3%		-8.9		-14.1%	
Italy		159.4%	56.9	58.6	51.2	51.1	58.8	60.1	61.7	54.9	56.9	58.4	56.2	163.2%		-0.7	-7.2	-1.2%	
Germany		265.5%	94.7	86.3	96.9	80.3	98.1	89.7	87.4	100.6	98.0	89.6	70.4	204.6%		-24.3		-25.6%	
Portugal		76.5%	27.3	31.4	26.8	29.5	30.3	29.3	30.3	24.5	22.7	24.0	27.8	80.8%		0.5		2.0%	
USA	149.4%	146.3%	52.2	45.1	48.9	47.0	50.5	57.4	48.7	50.1	48.6	55.2	49.3	143.1%	175.0%	-2.9		-5.5%	9.1%
Argentina		174.8%	62.4	77.6	61.0	62.7	72.6	69.5	69.0	66.6	65.0	53.2	71.3	207.0%		8.9		14.3%	
Chile		107.5%	38.4	31.3	30.6	36.1	33.3	40.9	43.3	42.2	43.8	50.7	44.2	128.4%		5.9	6.9	15.3%	
South África		157.1%	56.0	51.4	55.7	67.1	69.8	62.7	70.2	73.5	77.0	75.7	70.4	204.3%		14.3		25.6%	
Australia		161.5%	57.6	69.9	72.4	64.9	89.5	85.6	84.4	55.2	72.0	66.5	66.1	192.0%		8.5		14.8%	
Other	46.8%	46.8%	16.7	16.4	16.0	16.8	18.7	15.8	16.8	17.9	18.5	18.2	16.9	49.1%	49.1%	0.2	0.2	1.3%	1.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>35.7</b>	<b>33.9</b>	<b>32.7</b>	<b>33.6</b>	<b>38.1</b>	<b>35.9</b>	<b>36.3</b>	<b>34.3</b>	<b>34.8</b>	<b>35.6</b>	<b>34.4</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-1.2</b>	<b>-1.2</b>	<b>-3.5%</b>	<b>-3.5%</b>

**Table I.5. - Wine consumption**

000 Hltrs															Change 2000 to 2010				
Countries	% on total 2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
															previsión				
Spain	<b>46.1%</b>	6.2%	14,046	14,238	13,960	13,798	13,898	13,686	13,514	13,100	12,168	11,271	10,600	4.5%	<b>37.7%</b>	-3,446	-24.5%	<b>-14.3%</b>	
France		15.3%	34,500	33,919	34,820	34,081	33,218	33,530	33,003	32,169	30,800	29,304	29,438	12.5%		-5,062	-14.7%		
Italy		13.7%	30,800	30,150	27,709	29,343	28,300	27,016	27,332	26,700	26,166	24,600	24,500	10.4%		-6,300	-20.5%		
Germany		8.9%	20,150	20,044	20,272	19,735	19,845	19,848	20,210	20,782	20,747	20,250	20,205	8.6%		55	0.3%		
Portugal		2.0%	4,595	4,697	4,651	5,315	4,913	4,900	4,793	4,523	4,539	4,515	4,447	1.9%		-148	-3.2%		
USA	<b>19.4%</b>	9.4%	21,200	21,250	22,538	23,801	25,150	26,300	27,150	28,250	27,950	27,250	27,110	11.5%	<b>20.6%</b>	5,910	27.9%	<b>11.4%</b>	
Argentina		5.5%	12,491	12,036	11,988	12,338	11,113	10,972	11,103	11,166	10,667	10,342	9,714	4.1%		-2,777	-22.2%		
Chile		1.0%	2,271	2,250	2,297	2,552	2,547	2,644	2,380	2,980	2,339	2,605	3,118	1.3%		847	37.3%		
South África		1.7%	3,892	3,903	3,879	3,461	3,478	3,401	3,407	3,557	3,558	3,384	3,467	1.5%		-425	-10.9%		
Australia		1.7%	3,899	3,976	4,007	4,196	4,361	4,523	4,583	4,769	4,291	5,198	5,325	2.3%		1,426	36.6%		
Other	<b>34.5%</b>	34.5%	77,755	81,012	83,877	88,766	92,217	91,567	96,525	101,194	101,968	97,781	98,376	41.6%	<b>41.6%</b>	20,621	20,621	26.5%	26.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>225,599</b>	<b>227,475</b>	<b>229,998</b>	<b>237,386</b>	<b>239,040</b>	<b>238,387</b>	<b>244,000</b>	<b>249,190</b>	<b>245,193</b>	<b>236,500</b>	<b>236,300</b>	<b>100.0%</b>	<b>100.0%</b>	<b>10,701</b>	<b>10,701</b>	<b>4.7%</b>	<b>4.7%</b>

**Table I.6. - Wine imports**

En miles de Hltr															Change 2000 to 2010				
Countries	% on total 2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
															previsión				
Spain	32.4%	1.0%	597	198	221	269	302	334	400	462	607	358	460	0.5%	27.7%	-137	-22.9%	31.3%	
France		9.6%	5,502	5,136	4,588	4,799	5,514	5,945	5,321	5,362	5,719	5,890	5,952	6.8%		450	8.2%		
Italy		1.0%	565	680	822	1,447	1,625	1,833	1,463	1,738	1,821	1,461	1,668	1.9%		1,103	195.2%		
Germany		17.3%	9,922	11,268	11,710	11,906	13,043	13,262	13,772	14,553	13,708	14,627	14,831	16.8%		4,909	49.5%		
Portugal		3.5%	1,985	1,703	1,365	1,379	1,582	1,420	1,235	1,253	1,399	2,176	1,467	1.7%		-518	-26.1%		
USA	8.4%	7.8%	4,479	4,688	5,460	6,082	6,415	7,052	7,718	8,373	8,250	9,267	9,385	10.7%	11.9%	4,906	109.5%	116.4%	
Argentina		0.1%	59	65	2	2	2	3	2	4	4	122	355	0.4%		296	501.7%		
Chile		0.1%	57	5	23	6	3	44	62	62	39	30	6	0.0%		-51	-89.5%		
South África		0.1%	78	43	53	68	27	196	191	141	18	20	16	0.0%		-62	-79.5%		
Australia		0.3%	156	125	159	222	258	221	298	435	622	616	686	0.8%		530	339.7%		
Other	59.2%	59.2%	33,906	37,168	40,383	42,651	44,921	47,220	49,904	52,615	51,901	48,712	53,240	60.5%	60.5%	19,334	19,334	57.0%	57.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>57,306</b>	<b>61,079</b>	<b>64,786</b>	<b>68,831</b>	<b>73,692</b>	<b>77,530</b>	<b>80,366</b>	<b>84,998</b>	<b>84,088</b>	<b>83,279</b>	<b>88,066</b>	<b>100.0%</b>	<b>100.0%</b>	<b>30,760</b>	<b>30,760</b>	<b>53.7%</b>	<b>53.7%</b>

Data for 2009 and 2010 come from GTA instead of OIV

**Table I.7. – Wine exports**

000 Hltrs															Change 2000 to 2010				
Countries	% on total 2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	% on total 2010	000 Ha	% total				
															previsión				
Spain	70.8%	14.3%	8,651	9,946	9,594	12,359	14,042	14,439	14,340	15,079	16,900	14,600	16,900	18.2%	61.9%	8,249	95.4%	34.6%	
France		24.9%	15,039	15,126	15,541	15,148	14,210	13,834	14,720	15,249	13,700	12,600	13,500	14.5%		-1,539	-10.2%		
Italy		24.3%	14,675	15,856	15,794	13,283	14,123	15,271	18,390	18,507	17,500	19,200	20,600	22.2%		5,925	40.4%		
Germany		4.0%	2,414	2,372	2,375	2,773	2,709	2,970	3,197	3,543	3,600	3,600	3,900	4.2%		1,486	61.6%		
Portugal		3.2%	1,941	1,673	2,141	3,162	3,229	2,627	2,900	3,411	2,900	2,300	2,600	2.8%		659	34.0%		
USA	17.9%	4.6%	2,769	2,844	2,662	3,293	3,874	3,459	3,761	4,231	4,600	4,000	4,100	4.4%	28.0%	1,331	48.1%	141.4%	
Argentina		1.4%	843	882	1,234	1,852	1,553	2,148	2,934	3,598	4,141	2,946	2,791	3.0%		1,948	231.1%		
Chile		4.4%	2,647	3,089	3,553	4,029	4,740	4,209	4,740	6,100	5,885	6,946	7,332	7.9%		4,685	177.0%		
South África		2.3%	1,410	1,773	2,174	2,385	2,677	2,811	2,717	3,126	4,100	4,000	3,800	4.1%		2,390	169.5%		
Australia		5.1%	3,109	3,750	4,715	5,365	6,426	7,019	7,598	7,862	6,985	7,720	7,994	8.6%		4,885	157.1%		
Other	11.4%	11.4%	6,880	7,820	8,088	8,880	9,180	10,069	8,494	8,743	9,589	9,088	9,383	10.1%	10.1%	2,503	2,503	36.4%	36.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>60,378</b>	<b>65,131</b>	<b>67,871</b>	<b>72,529</b>	<b>76,763</b>	<b>78,856</b>	<b>83,791</b>	<b>89,449</b>	<b>89,900</b>	<b>87,000</b>	<b>92,900</b>	<b>100.0%</b>	<b>100.0%</b>	<b>32,522</b>	<b>32,522</b>	<b>53.9%</b>	<b>53.9%</b>



## **ANNEX II: QUESTIONNAIRE**

### ***Section A: Preliminary questions***

1) The planting rights regime has been a factor in slowing the development of dynamic farms?

*Grade your response from 1 to 5: 1 no slowdown, 5 slowdown*

2) Farms that have increased their size, did it:

*Distribute 100 points among the three responses*

- a) acquiring rights from the reserve
- b) planting new vineyards, acquiring planting rights by the market
- c) purchasing vineyards already planted

### ***Section B: Planting rights from the reserve***

3) The mechanism of acquisition of planting rights from the reserve was usually:

- a) simple, but the rights were too few
- b) complex and the rights was limited
- c) complex, despite a good availability of rights
- d) simple, with good availability of rights

4) The planting rights of the reserve were obtained (more than one answer is possible):

- a) for free
- b) for consideration

5) What categories of subjects received planting rights for free?

6) At what price (€/ha) were the planting rights assigned for consideration?

7) What are the main problems encountered for acquisition to the planting rights from the reserves?

***Section C: Planting rights from the market***

- 8) What was the trend in the average price of planting rights between 1999 and 2007?
- 9) There was cases of prices particularly different from the average?
- 10) Why?
- 11) What was the trend in the average price of planting rights between 2008 and 2011?
- 12) More specifically, the new CMO, with the planned abolition of the planting rights regime and with the strong support for the grubbing-up, has influenced the price of planting rights?

*Grade your response from 1 to 5: 1 negligible influence; 5 marked influence*

- 13) What was the geographical origin of the planting rights acquired on the market:

*Distribute 100 points among the three (modes of) response*

- a) Local
- b) Regional
- c) Other region (please specify)

- 14) By what agent rights have been acquired?

*Distribute 100 points among the three modes of response*

- a) Local Brokers
- b) Brokers of the regions of origin
- c) Other (specify)

- 15) The mechanism of the acquisition of planting rights from the market has generally been smooth?

*Grade your response from 1 to 5: 1 very labored, 5 very smooth*

- 16) What were the main problems in the acquisition of rights on the market?

*Section D: Final questions*

17) Farms who have expanded their area under vine, have allocated the additional surface areas to produce:

*Distribute 100 points among the three modes of response*

- a) grapes for wine PDO
- b) grapes for wine PGI
- c) grapes for other types of wine

18) Has the planting rights regime interacted in the region with other mechanisms for regulation of supply adopted by organizations of producers or public bodies?

19) Overall, how you agree with the following sentences concerning the effect of the planting rights regime on the dynamics of the vineyards in your area?

*Grade your response from 1 (full disagreement) to 5 (full agreement)*

- a) No effects, because the demand for new plantation was lower than the available amount of planting rights.
- b) No effects, because planting rights are only one of the mechanisms provided by the European wine policy.
- c) No effects, because dynamics of the vineyards depend on the balance of the supply and demand of the wine market.
- d) Positive effect, as the planting right regime has prevented excessive new plantations during periods with a temporary shortage of supply.
- e) Positive effects as in areas where it is difficult to grow the vines or in less profitable areas (mountains, islands etc.) it kept the vineyards, landscape and jobs in place.
- f) Positive effects as it helped the public authorities to propose incentives to attract new young grapegrowers.
- g) Negative, as the planting right regime has hampered a development of area under vine which would have favored the strengthening of wine supply in the area.
- h) Negative, as fast-expanding and successful wine entrepreneurs may not find enough planting rights on the markets to undertake their vine projects.

20) Finally, if you like, add any comments



## ANNEX III: TOOLS – MATHEMATICAL MODELS AND STATISTICAL DATA

### III.1. Mathematical representation of Nerlove's model

The Nerlove model assumes that the response of the area under vines, at time  $t$ , is a linear function of expected prices and other variables deemed relevant:

$$x_t^d = \pi_0 + \pi_1 P_t^e + \pi_2 z_t + u_t$$

where:

$x_t^d$  = desired area under vines cultivated in time  $t$ ;

$P_t^e$  = series of related expected prices;

$z_t$  = set of explanatory variables;

$u_t$  = random error;

$\pi_1$  = long-term coefficient for supply to react to price variations.

Full adaptation of the desired area to expected price levels does not take place in a single cycle, but occurs with the gradual alignment distributed over a time horizon of a number of production cycles.

Therefore, alignment of the area under vines in time  $t$  represents just a fraction of adjustment, desired  $\delta$  observed in time  $t-1$ :

$$x_t = x_{t-1} + \delta (x_t^d - x_{t-1}) + v_t \quad 0 \leq \delta \leq 1,$$

where:

$x_t^d$  = desired area under vines;

$x_t$  = actual area under vines;

$\delta$  = partial adjustment coefficient;

$v_t$  = zero mean random error;

In effect, at grape harvesting time real alignment of the price the grower expects cannot be observed. For this reason growers' decisions are made on the basis of the expectations of current and past prices and other information that can be observed on the market; i.e. it is thought that wine grape growers 'learn' from past experience, gradually adjusting their decisions on the basis of the difference between actual prices  $P_t^a$  and expected ones  $P_{t-1}^e$  for the  $\gamma$  fraction:

$$P_t^e = P_{t-1}^e + \gamma (P_{t-1}^a - P_{t-1}^e) + w_t \quad 0 \leq \gamma \leq 1,$$

where:

$P_t^e$  is the result of weighing of past prices by growers, which considers a geometric drop in the set of weights along the past time horizon:

$$P_t^e = \gamma \sum_{i=1}^{\infty} (1-\gamma)^{i-1} P_{t-i}^a$$

$w_t$  = zero mean random error;

The Nerlove model used is a variant of the classical model, considering the variables on a logarithmic scale. Of the model specifications, the one that prevailed in terms of goodness of fit considers 1 distributed lag for the response variable (1 year), of the kind shown below:

$$\ln(x)_t = \alpha_0 + \alpha_1 \ln(P)_{t-1} + \alpha_2 \ln(x)_{t-1} + \alpha_3 \ln(\text{gam})_{t-1} + \alpha_4 \ln(\text{MP})_{t-1} + \alpha_5 \ln(T) + e_t$$

where:

$x_t$  = area under vines observed at time  $t$ ;

$P_{t-1}$  = set of average export prices at time  $t-1$ ;

$x_{t-1}$  = set of areas under vines at time  $t-1$ ;

$\text{gam}_{t-1}$  = degree of market opening in volumes [(Import+Export) / (Production)] at time  $t-1$ ;

$\text{MP}_{t-1}$  = average prices (export averages) for the cycle of years  $t-2$  to  $t-5$ ;

$T$  = linear trend;

$e_t$  = random error;

In the model a one-lagged price variable was explicitly included, as it is assumed that the grower will align the area under vines in time  $t$  on the basis of the prices fetched in time  $t-1$ .

The settings of the initial model described above were later altered by backward selection of the significant dependent variables considered as "degree of market opening", "average prices for the cycle of years  $t-2$  to  $t-5$ " and "linear trend".

Estimates of short and long term elasticity can be calculated as follows:

$$e_{sp} = \hat{\alpha}_1$$

$$e_{lp} = \frac{\hat{\alpha}_1}{(1 - \hat{\alpha}_2)}$$

Where  $\hat{\alpha}_1$  and  $\hat{\alpha}_2$  represent the values of the model's estimated coefficients. The adjustment coefficient is assessed on the basis of the following relation:

$$\delta = \frac{e_{sp}}{e_{lp}} = (1 - \hat{\alpha}_2)$$

**Table III.1. - Summary of results obtained from residuals analysis for the main EU and Third Country producers, with '1 distributed lag', Years 1976-2010**

Country:	Observed values of the test statistics		
	<i>Shapiro - Wilk</i>	<i>Durbin - Watson</i>	
France	0.9131*	2.0862	
Germany	0.8440**	1.6085	
Italy	0.9452	2.1998	
Spain	0.9486	2.0806	
Hungary	0.9530	1.7402	
Argentina	0.9712	1.9903	
Australia	0.9595	1.7268	

<b>Chile</b>	0.9684	1.5738*	
<b>New Zealand</b>	0.9848	1.9168	
<b>United States</b>	0.9587	1.5501	
<b>South Africa</b>	0.9319	1.9881	

Legend for significance of p-values: <0.001 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' >0.1

Additional analyzes conducted for the case of France through the Nerlove model showed an effect of the price at time  $t-1$  on acreage not significant to the horizon before the reform. These results support the development of a trend of French producers, since the introduction of planting rights, adapting in advance their choices on the basis of the observed price, if this increases, it follows a contraction of the cultivated area, as indicated the negative sign of the estimated coefficient for the price at time  $t-1$ .

**Table III.2. - Summary of results obtained from a Nerlove model estimation for the case of France, with '1 distributed lag', Years 1961-1975**

Country:	Estimated coefficients:						R <sup>2</sup> adj
	Constant	Price <sub>t-1</sub>	Area <sub>t-1</sub>	gam <sub>t-1</sub>	MP <sub>t-1</sub>	T	
<b>France</b>	11.2765 (0.9875)**	0.0340 (0.0193)	0.1929 (0.0707)		-0.0898 (0.0280)*		0.90

Values in parentheses are the standard errors of estimate. Legend for significance of p-values: <0.001 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' >0.1

Sources: Our processing of FAO STAT data, 1961- 1975

## III.2. Additional results from FADN

**Table III. 3 - Main accountancy results for particular type of farming by selected region (Italy period 2006-2008)**



Type of farming	Piemonte		Toscana		Veneto			
	Quality wine	Comparable TF	Quality wine	Comparable TF	Quality wine	Wine other than	Quality and other wine	Comparable TF
<b>Technical and economical parameters</b>								
Nr observations	418	53	273	45	177	75	19	93
Total labour input	1.70	1.14	7.72	5.04	2.53	1.90	1.97	1.32
Unpaid labour input	1.45	1.14	1.28	1.26	1.56	1.57	1.73	1.09
Total assets	387,278	214,224	3,320,961	2,042,909	1,483,669	807,131	691,059	1,008,029
Total Utilised Agricultural Area	9.74	17.97	52.55	97.97	16.05	13.19	7.88	16.15
Vineyards on UAA	0.74	0.20	0.51	0.14	0.87	0.57	0.90	0.23
Cereals on UAA	0.12	0.47	0.08	0.39	0.09	0.07	0.10	0.49
Unpaid labour input on Total labour input	0.85	1.00	0.17	0.25	0.62	0.83	0.88	0.82
Total output	89,464	30,150	722,362	433,605	124,662	104,023	138,089	43,286
Total Intermediate Consumption	21,253	9,702	274,523	168,009	35,868	38,859	103,329	19,182
Gross Farm Income	75,058	27,988	446,842	291,888	91,277	72,455	41,485	29,908
Depreciation	12,122	8,724	90,348	45,661	16,199	13,820	15,102	9,756
Farm Net Value Added	62,936	19,264	356,494	246,228	75,078	58,635	26,383	20,151
Total external factors	5,263	729	169,705	97,669	19,291	12,571	7,518	5,695
Family Farm Income	57,672	18,711	191,857	151,189	56,222	47,595	18,865	14,451
<b>Indexes</b>								
Total Output on UAA	9,188	1,678	13,747	4,426	7,768	7,888	17,535	2,681
Output from wine and grapes on Vineyards	11,883	4,736	24,079	23,629	8,587	12,944	19,167	6,717
UAA on Total labour input	5.72	15.78	6.81	19.43	6.33	6.93	4.00	12.20
Total Output on Total labour input	52,549	26,484	93,599	85,987	49,199	54,639	70,096	32,713
Total Intermediate Consumption on Total Output	0.24	0.32	0.38	0.39	0.29	0.37	0.75	0.44
Depreciation on Gross Farm Income	0.16	0.31	0.20	0.16	0.18	0.19	0.36	0.33
Total external factors on Farm Net Value Added	0.08	0.04	0.48	0.40	0.26	0.21	0.28	0.28
Total output on Total labour input	52,549	26,484	93,599	85,987	49,199	54,639	70,096	32,713
Family Farm Income on Total output	0.64	0.62	0.27	0.35	0.45	0.46	0.14	0.33

Source: EU-FADN - DG AGRI.

**Table III.4. - Main accountancy results for particular type of farming by region (Germany period 2006-2008)**

Type of farming	Rheinland-Pfalz	
	Quality wine	Comparable TF
Technical and economical parameters		
Nr observations	872	42
Total labour input	2.87	2.59
Unpaid labour input	2.09	2.13
Total assets	582,032	703,244
Total Utilised Agricultural Area	14.67	69.10
Vineyards on UAA	0.73	0.14
Cereals on UAA	0.18	0.55
Unpaid labour input on Total labour input	0.73	0.82
Total output	160,511	163,273
Total Intermediate Consumption	73,479	85,451
Gross Farm Income	99,664	104,644
Depreciation	19,894	18,021
Farm Net Value Added	79,770	86,623
Total external factors	21,580	25,213
Family Farm Income	55,639	59,500
Indexes		
Total Output on UAA	10,945	2,363
Output from wine and grapes on Vineyards	13,629	8,417
UAA on Total labour input	5.12	26.65
Total Output on Total labour input	56,017	62,969
Total Intermediate Consumption on Total Output	0.46	0.52
Depreciation on Gross Farm Income	0.20	0.17
Total external factors on Farm Net Value Added	0.27	0.29
Total output on Total labour input	56,017	62,969
Family Farm Income on Total output	0.35	0.36

Source: EU-FADN - DG AGRI.

**Table III.5. - Main accountancy results for particular type of farming by region (France period 2006-2008)**

Type of farming	Languedoc-Roussillon			
	Quality wine	Wine other than quality	Quality and other	Comparable TF
Technical and economical parameters				
Nr observations	276	268	63	39
Total labour input	2.31	2.60	3.56	2.35
Unpaid labour input	1.23	1.18	1.22	1.30
Total assets	361,219	388,828	463,667	277,334
Total Utilised Agricultural Area	28.92	42.17	51.89	85.35
Vineyards on UAA	0.91	0.78	0.86	0.22
Cereals on UAA	0.01	0.10	0.06	0.44
Unpaid labour input on Total labour input	0.53	0.46	0.34	0.56
Total output	112,621	124,878	190,692	109,029
Total Intermediate Consumption	55,360	70,347	108,660	66,951
Gross Farm Income	59,135	60,791	88,830	74,365
Depreciation	20,151	23,881	26,331	20,363
Farm Net Value Added	38,984	36,910	62,499	54,003
Total external factors	33,429	41,669	68,347	38,397
Family Farm Income	8,757	909	-2,978	21,843
Indexes				
Total Output on UAA	3,895	2,961	3,675	1,277
Output from wine and grapes on Vineyards	4,086	3,500	4,008	2,629
UAA on Total labour input	12.53	16.24	14.59	36.37
Total Output on Total labour input	48,782	48,087	53,609	46,466
Total Intermediate Consumption on Total Output	0.49	0.56	0.57	0.61
Depreciation on Gross Farm Income	0.34	0.39	0.30	0.27
Total external factors on Farm Net Value Added	0.86	1.13	1.09	0.71
Total output on Total labour input	48,782	48,087	53,609	46,466
Family Farm Income on Total output	0.08	0.01	-0.02	0.20

Source: EU-FADN - DG AGRI.

**Table III.6. - Main accountancy results for particular type of farming by region (Spain period 2006-2008)**

Type of farming	La Rioja		Castilla-La Mancha		
	Quality wine	Comparable TF	Quality wine	Wine other	Comparable TF
Technical and economical parameters					
Nr observations	229	106	427	300	159
Total labour input	1.59	1.29	1.62	2.10	1.76
Unpaid labour input	1.05	0.96	1.07	1.60	1.35
Total assets	557,988	333,898	253,056	277,598	285,528
Total Utilised Agricultural Area	19.88	25.46	36.30	48.13	74.76
Vineyards on UAA	0.63	0.22	0.64	0.77	0.24
Cereals on UAA	0.26	0.56	0.20	0.12	0.50
Unpaid labour input on Total labour input	0.66	0.74	0.66	0.76	0.76
Total output	69,571	53,247	38,467	51,313	47,719
Total Intermediate Consumption	16,717	19,198	9,222	6,424	13,909
Gross Farm Income	56,424	38,617	32,825	47,171	41,524
Depreciation	5,962	3,465	3,310	396	1,735
Farm Net Value Added	50,461	35,152	29,515	46,774	39,789
Total external factors	9,842	5,364	8,161	6,381	6,260
Family Farm Income	40,133	29,732	21,318	40,384	33,704
Indexes					
Total Output on UAA	3,500	2,091	1,060	1,066	638
Output from wine and grapes on Vineyards	4,898	4,832	1,451	1,144	1,334
UAA on Total labour input	12.49	19.68	22.48	22.88	42.41
Total Output on Total labour input	43,722	41,155	23,814	24,390	27,072
Total Intermediate Consumption on Total Output	0.24	0.36	0.24	0.13	0.29
Depreciation on Gross Farm Income	0.11	0.09	0.10	0.01	0.04
Total external factors on Farm Net Value Added	0.20	0.15	0.28	0.14	0.16
Total output on Total labour input	43,722	41,155	23,814	24,390	27,072
Family Farm Income on Total output	0.58	0.56	0.55	0.79	0.71

Source: EU-FADN - DG AGRI.

**Table III.7. - Main accountancy results for particular type of farming (Hungary period 2006-2008)**

Type of farming	Hungary			
	Quality wine	Wine other than quality	Quality and other wine combined	Comparable TF
Technical and economical parameters				
Nr observations	155	64	21	20
Total labour input	4.52	2.35	4.57	1.61
Unpaid labour input	0.99	0.79	1.16	1.11
Total assets	574,933	154,728	365,897	103,483
Total Utilised Agricultural Area	25.07	11.24	27.62	35.20
Vineyards on UAA	0.65	0.93	0.83	0.16
Cereals on UAA	0.15	0.04	0.10	0.46
Unpaid labour input on Total labour input	0.22	0.34	0.25	0.69
Total output	134,772	50,449	142,960	31,079
Output from wine and grapes on Vineyards	7,261	4,582	5,876	2,627
Total Intermediate Consumption	57,787	21,025	68,041	17,016
Gross Farm Income	84,100	33,484	84,074	22,293
Depreciation	24,665	7,944	21,445	5,179
Farm Net Value Added	59,435	25,539	62,629	17,114
Total external factors	31,786	8,810	17,128	3,451
Family Farm Income	29,388	16,802	46,841	13,626
Indexes				
Total Output on UAA	5,375	4,489	5,176	883
Output from wine and grapes on Vineyards	7,261	4,582	5,876	2,627
UAA on Total labour input	5.55	4.78	6.04	21.91
Total Output on Total labour input	29,838	21,440	31,287	19,342
Total Intermediate Consumption on Total Output	0.43	0.42	0.48	0.55
Depreciation on Gross Farm Income	0.29	0.24	0.26	0.23
Total external factors on Farm Net Value Added	0.53	0.34	0.27	0.20
Total output on Total labour input	29,838	21,440	31,287	19,342
Family Farm Income on Total output	0.22	0.33	0.33	0.44

Source: EU-FADN - DG AGRI.

**Table III.8. - Comparison of average Farm Net Value Added by UAA size (period 2006-2009\*)**

Region	Type of farming	Classes of UAA					
		UAA <= 25 ha		25 < UAA <= 50		UAA > 50	
		Nr observations	FNVA	Nr observations	FNVA	Nr observations	FNVA
Rheinland-Pfalz	Comparable TF					21	122,999
	Quality wine	762	70,294	73	142,128	37	151,899
Languedoc-Roussillon	Comparable TF					31	70,241
	Quality wine	239	15,788	171	46,268	67	118,382
	Wine other than quality	98	5,380	105	23,896	67	102,411
	Quality and other wine combi	23	9,609	21	32,133	19	160,087
La Rioja	Comparable TF	65	29,253	44	36,448		
	Quality wine	248	37,149	48	67,583	18	77,273
Castilla-La Mancha	Comparable TF			47	23,073	144	41,756
	Quality wine	181	14,879	254	28,531	108	48,019
	Wine other than quality	69	14,606	153	34,580	169	59,012
Piemonte	Comparable TF	41	13,207				
	Quality wine	399	39,850				
Veneto	Comparable TF	77	5,500				
	Quality wine	157	40,885				
	Wine other than quality	67	27,797				
	Quality and other wine combi	19	26,383				
Toscana	Comparable TF					21	439,265
	Quality wine	134	72,648	61	253,333	78	924,804

\* 2009 data available only for Hungary, France, Spain

Source: EU-FADN - DG AGRI.

**Table III.9. - Comparison of average Farm Net Value Added by total assets size (period 2006-2009\*)**

Region	Type of farming	Classes of total assets					
		total assets <= 500.000		500.000 < total assets < 1.000.000		total assets >= 1.000.000	
		Nr observations	FNVA	Nr observations	FNVA	Nr observations	FNVA
Rheinland-Pfalz	Comparable TF			19	89,050		
	Quality wine	465	49,090	288	88,395	119	178,780
Languedoc-Roussillon	Comparable TF	44	50,472				
	Quality wine	372	24,211	87	84,207	18	182,454
	Wine other than quality	217	18,615	43	68,489		
	Quality and other wine combi	48	23,108				
La Rioja	Comparable TF	104	31,892				
	Quality wine	172	34,925	105	50,264	37	69,273
Castilla-La Mancha	Comparable TF	188	33,967				
	Quality wine	514	24,540	24	78,435		
	Wine other than quality	380	40,520				
Piemonte	Comparable TF	47	16,192				
	Quality wine	341	31,996	42	70,088	35	355,792
Veneto	Comparable TF	61	4,640			17	80,636
	Quality wine	86	18,761	32	52,103	59	169,628
	Wine other than quality	57	14,742				
Toscana	Comparable TF	18	43,555			20	502,714
	Quality wine	94	41,807	37	149,626	142	618,710

\* 2009 data available only for Hungary, France, Spain

Source: EU-FADN - DG AGRI.

### III.3. The CES - PMP model

The calibration procedure uses a three stage approach. In the first stage a linear programming procedure is specified. Dual values from the first stage have been used in the second stage to derive a regional production function and cost parameters that calibrate the nonlinear CES model to the base year data. All resource and policy constraints are included in the calibration process. Finally a third-stage model is specified with a non-linear objective function that includes both nonlinear production function and land costs.

Next the LP model used in the first-stage is specified.

$$\begin{aligned} & \text{Max} \sum_{i=1}^N p_i \bar{y}_i x_i - \sum_{i=1}^N \omega_i a_{ij} x_i \\ & \text{s.t. } Ax \leq b, \\ & \quad Ix \leq \bar{x} + \varepsilon. \end{aligned}$$

The data set is represented by the regional observation over  $i$  crops. These observations include the product prices  $P_i$ , acreage allocation  $\bar{x}_{ij}$ , crop input uses  $x_{ij}$ , cost per unit  $\omega_j$ , and average yields  $\bar{y}_i$ . Allocable resource limits or policy constraints are defined as  $b_j$ , the right hand side values of inequality constraints on the production activities.

An additional calibration constraint is added. The  $\varepsilon$  perturbation on the calibration constraints decouples the true resource constraints ( $b_j$ ) from the calibration constraints, and ensures that the dual values on the allocable resources represent the marginal values of the resource constraints. The two constraints give two different sets of dual values. The vector  $\lambda_1$  represents the shadow value duals associated with resource constraints. The vector  $\lambda_2$  represent the PMP values associated with the calibration constraint. In fact an imperfect market for land as well as its heterogeneity do not allow the marginal allocation conditions to hold for each group of crops. In this context  $\lambda_2$  can be considered as the additional marginal implicit cost needed to equalize the marginal values for land among different crops. The first order conditions tell us that the dual value  $\lambda_2$  is an hedonic measure of the difference between the average and marginal product of land for calibrated crops.

Both  $\lambda_1$  and  $\lambda_2$  are used to compute the equilibrium opportunity cost of land and other fixed allocable inputs. These values are then used to derive the production function coefficients. A CES production function is specified as:

$$y_i = \alpha_i (\beta_1 x_{i1}^\gamma + \beta_2 x_{i2}^\gamma + \beta_3 x_{i3}^\gamma)^{\frac{1}{\sigma}}$$

where:  $\gamma = \frac{\sigma - 1}{\sigma}$ ,  $\beta_3 = 1 - \beta_1 - \beta_2$  and  $\sigma =$  elasticity of substitution. The parameter  $\gamma$  may vary

from zero when  $\sigma = 1$  (Cobb-Dougals production function that means perfect substitutability) to one when  $\sigma = 0$  (Leontief production function that means no substitutability).

We assume that the production function has constant return to scale for a given quality of land. The elasticity of substitution is defined as an exogenous parameter according to the technology employed. Since the technology does not change in the short-run we can assume that the elasticity of substitution is less likely to vary over a specific model.

Share parameters  $\beta_j$  are expressed in terms of factor cost and input shares. The first order conditions for input allocation equate the value of marginal product to the nominal input cost plus any shadow costs for constrained resources. Derivation and manipulation of first order conditions lead to a definition of share parameters:

$$\frac{1}{\beta_1} = 1 + \frac{\varpi_2}{\varpi_1} \left( \frac{x_1}{x_2} \right)^{-\frac{1}{\sigma}} + \frac{\varpi_3}{\varpi_1} \left( \frac{x_1}{x_3} \right)^{-\frac{1}{\sigma}}$$

$$\beta_2 = \beta_2 \frac{\varpi_2}{\varpi_1} \left( \frac{x_1}{x_2} \right)^{-\frac{1}{\sigma}}$$

$$\beta_3 = 1 - \beta_1 - \beta_2$$

where  $\varpi_j$  is the facto opportunity cost and  $\sigma$  is the elasticity of substitution. The share equations for allocable resource inputs other than land have the resource shadow cost, measured by the dual constraint  $\lambda_1$ , added to the market price of the input to have the  $\varpi_j$ . Because of changes in quality, the cost of land inputs is derived by adding the market price, shadow value  $\lambda_1$ , and the marginal crop-specific PMP cost,  $\lambda_2$ , to yield the land factor cost  $\varpi_j$ . The crop specific cost of land reflects both scarcity value of land and the quality differences in the land allocated to different crops. The crop and regional scale coefficient  $\alpha$  is calibrated by substituting the values of  $\beta$ ,  $\sigma$ ,  $\gamma$ , and  $x$  in the CES production function.

The marginal implicit cost of changing crop parameters is included in the share equations because of parameter  $\varpi_j$ . The cost function is also explicitly defined in the objective function. In particular, the cost is defined as:

$$TC = \alpha x_i - 1/2 \Gamma x_i^2, \text{ total cost}$$

$$AC = \alpha - 1/2 \Gamma x_i, \text{ average cost}$$

$$MC = \alpha - \Gamma x_i, \text{ marginal cost.}$$

Since the  $\lambda_2$  is the difference between the average and the marginal cost we can derive the value for the slope values  $\Gamma$  as:

$$\Gamma = \frac{2 \lambda_{2i}}{x_i}$$

The intercept value can be easily derived as the different between the average cost and  $\lambda_2$ .

Using calibrated coefficients a general CES representation of the agricultural resource production function is shown in the following model:

$$\text{Max} \sum_i p_i \left[ \alpha_i \left( \sum_j \beta_{ij} x_{ij}^\gamma \right)^{\frac{1}{\gamma}} \right] - \sum_j \omega_{ij} x_{ij} - \sum_i \Gamma_i x_{ij}^2$$

$$\text{s.t. } Ax \leq b$$

In this model the production technology is more general and more flexible because it incorporates the elasticity of substitution. In other words the model solves for the optimal input proportions in conjunction with the land allocation but not in fixed proportions as in the Leontief specification. However the objective function has the additional implicit cost function specified for each land allocation. A non linear cost is justified by the heterogeneity of the land and other inputs and the fixed nature of some farm inputs such as family labor and major machinery inputs.

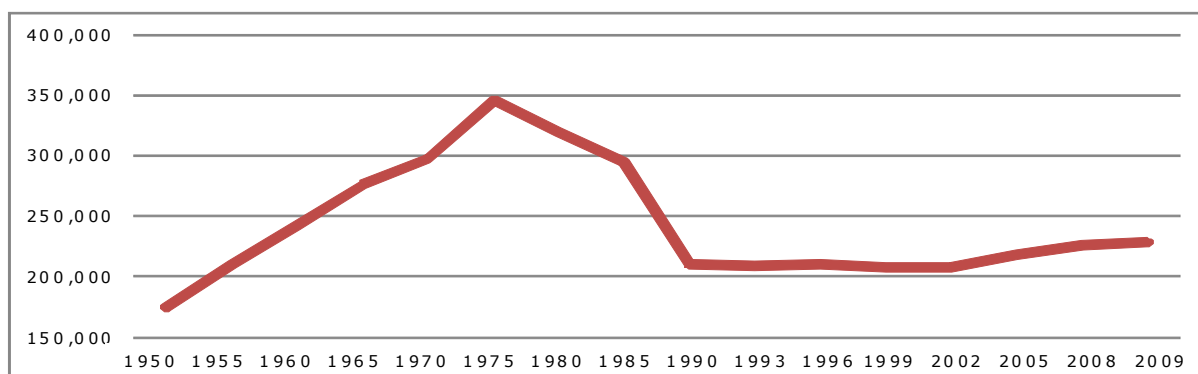
### III.4. Third countries

#### III.4.1. Argentina

The area under vines in Argentina has undergone drastic changes over the past 60 years. Observing figure III.1 it can be seen that after the end of World War II there was important, continuous growth in production potential, which lasted up to 1975 and was aided by laws encouraging the planting of new vineyards.

The consequence of this expansion was chronic oversupply on the domestic market which soon became unsustainable and led the government to issue heavy measures in order to reduce the area under vines. As a result there was a phase of rapid decrease when Argentinean vineyards diminished by over 40% in 15 years, followed by a plateau lasting up to the first years of the new millennium, when there was again a slight increase.

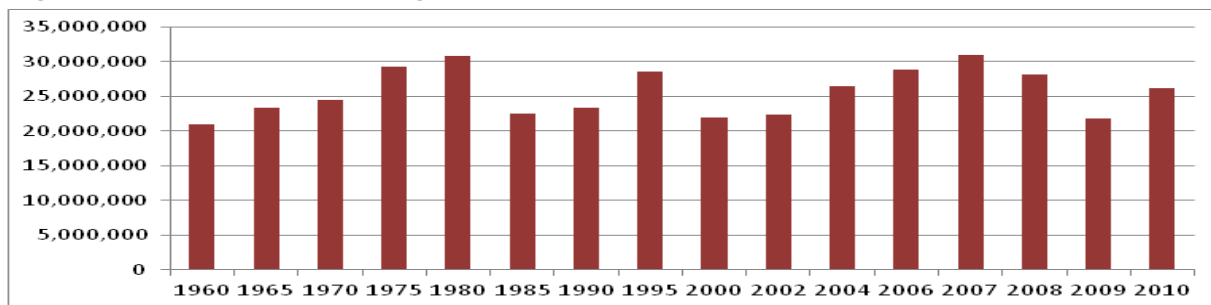
**Figure III.1. - Evolution of the area under vines – hectares**



Source: Instituto Nacional de Vitivinicultura.

Production evolution also shows a discontinuous trend (figure III.2), although not as marked as that for area under vines. We can observe a first phase of expanding supply that lasted until 1980 when there was a peak of over 30 million metric quintals. This was followed by a twenty year period in which production stood at around 23 million metric quintals (except in the mid 90s, when values were slightly higher). At the beginning of the new millennium there was a new upward trend but this was interrupted in 2008, when once again there was a certain volatility in production.

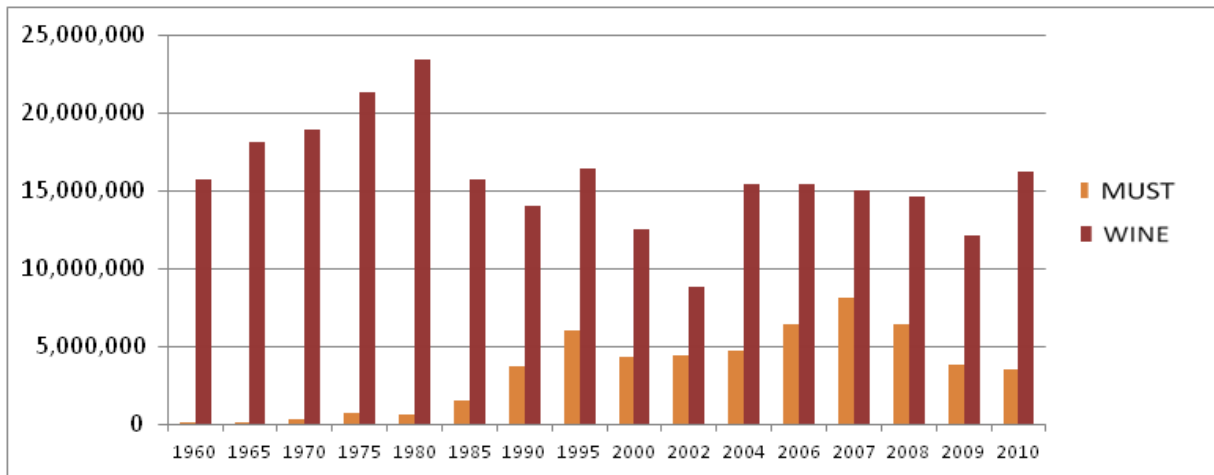
**Figure III.2. - Evolution of grape production – metric quintals**



Source: Instituto Nacional de Vitivinicultura.

The peculiarities of Argentinean legislation, specifically the Mendoza-San Juan Agreement, caused a situation where the oscillations in grape production were not reflected directly in wine production. From the 90s the production of must increased considerably (figure III.3), due to the laws that every year established a minimum percentage of the harvest to be used for must. In this way good stability was maintained for supplies over the last twenty years, which was also favourable for the production of quality wines, as only grapes of inferior quality were used for the production of must.

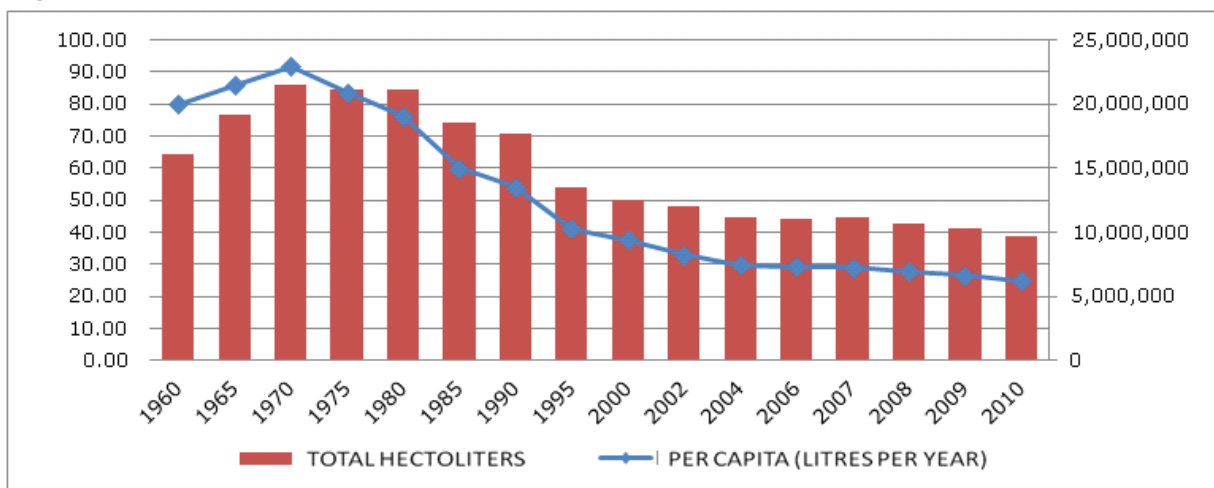
**Figure III.3. - Evolution of must and wine production – hectolitres**



Source: Instituto Nacional de Vitivinicultura.

Consumption of wine by the Argentinean population, as in all the countries that historically produce large quantities of wine, has dropped continuously since the early 70s. Obviously, per capita consumption followed the same trend and after exceeding 90 litres began to decline, at first rapidly, then more gradually.

**Figure III.4. - Evolution of wine consumption – total and per capita**



Source: Area del Vino.

With reference to Argentinean wine exports, these rose sharply in the first years of the new century, especially between 2002 and 2008, during which time they more than tripled. After 2009 ended with values similar to the previous year, in 2010 there was again an increase in the value of exports. Exports of must also went through a period of rapid expansion towards the middle of the first ten years of the century, followed by a marked



drop between 2008 and 2009 which very likely was influenced also by a drop in national production of must which occurred at the same time.

**Figure III.5. - Evolution of wine and must exports - thousands of USD**

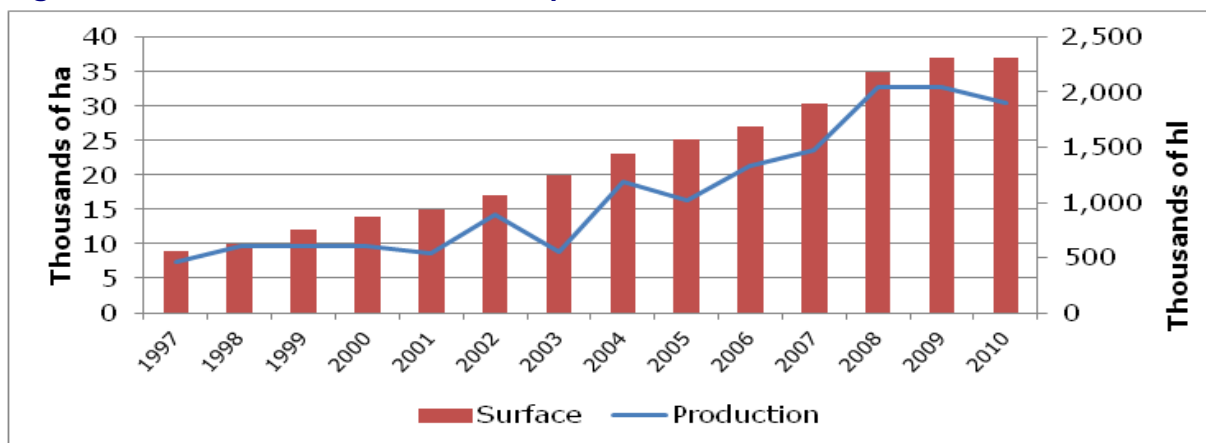


Source: Instituto Nacional de Vitivinicultura.

### III.4.2. New Zealand

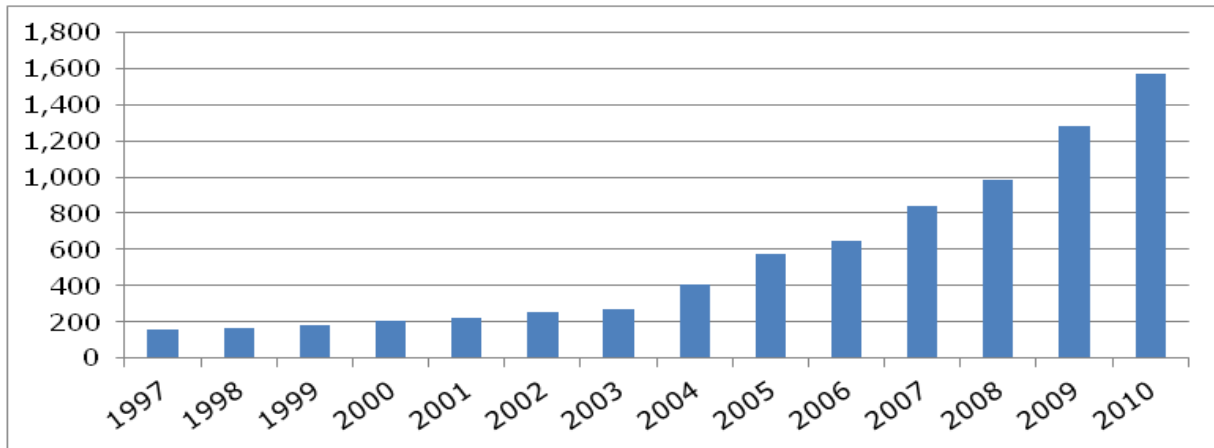
The area under vines in New Zealand experienced continuous, constant growth over the first ten years of the new millennium, going from around 9,000 to 37,000 hectares. The supply curve mainly followed that of area, with obvious variations due to the seasonality that affects agricultural production (figure III.6). The only exception occurred in the past 3 years, when a moderate increase in production potential showed an opposite trend with regard to production.

**Figure III. 6 - Area under vines and production in New Zealand, 1997-2010**



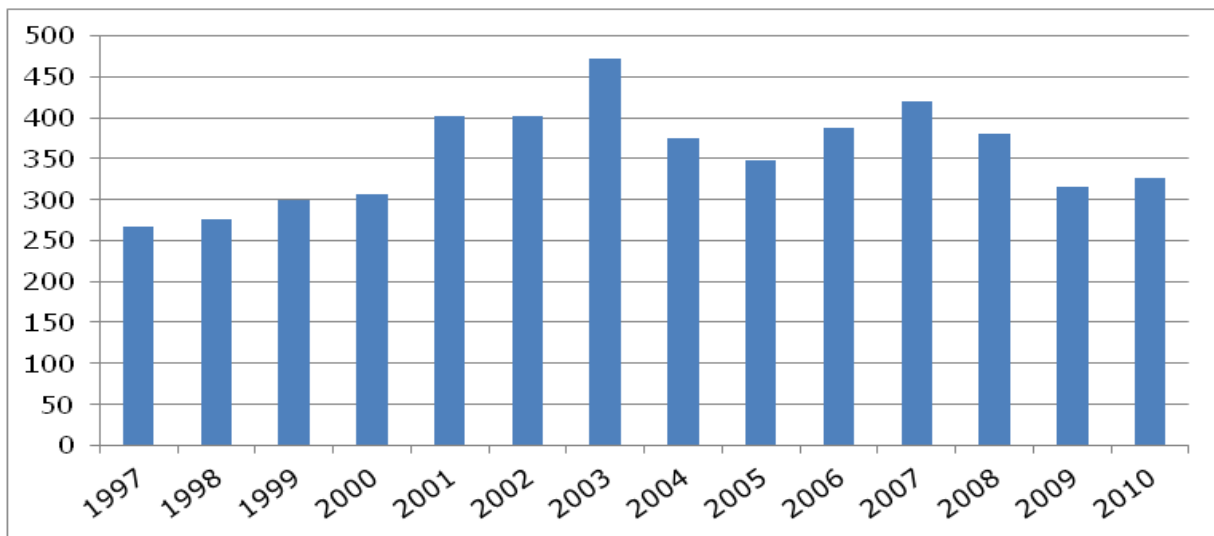
Source: OIV.

With reference to the position on the international wine market, exports had a higher growth trend than production and became an increasingly important tool for absorbing supply, especially in the case of a country such as New Zealand where it greatly exceeds domestic consumption.

**Figure III.7. - New Zealand wine export – thousands of hl**

Source: Global Trade Atlas.

On the other hand, imports did not show the same increase (Figure III.8): in spite of the fact that per capita consumption increased, the percentage of foreign wine consumed by New Zealanders diminished progressively, although it remained high if compared with the other major world producers.

**Figure III.8. - New Zealand wine import – thousands of hl**

Source: Global Trade Atlas.

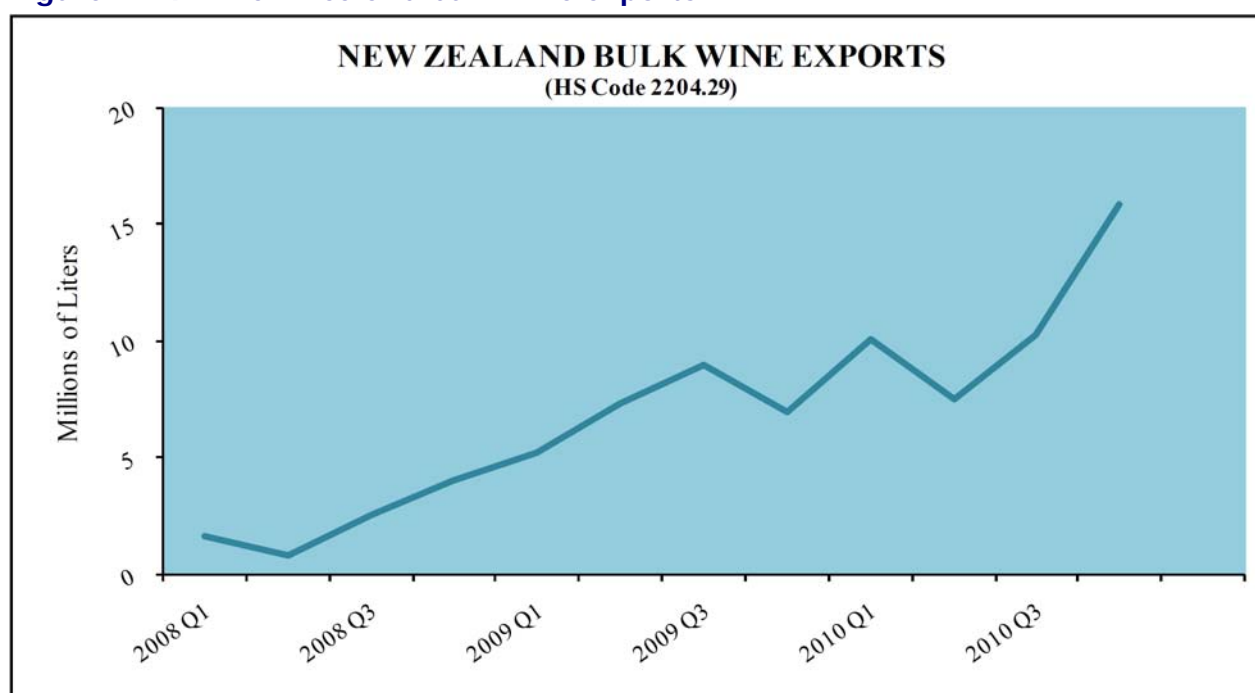
With regard to domestic sales in New Zealand, these grew continuously up to 2009 and then dropped slightly in 2010 (table III.10). However, the first ten years of the 21st century ended with a growth in consumption of over 39%, mainly driven by national wines, which had a slight downturn on the local market between 2001 and 2004, but returned to a positive trend that took sales to a level which regained leadership.

**Table III.10. - New Zealand Wine Consumption**

NEW ZEALAND WINE CONSUMPTION											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Domestic sales of NZ wine (millions of liters)	41.3	36.2	32.6	35.3	35.5	45	50	51	46.5	59.3	56.7
Total sales of all wine in NZ (millions of liters)	66.2	66.6	68.3	74.5	79.7	81.7	86	91.8	87.4	92.7	92.1
NZ wine as a percentage of domestic sales	62%	54%	48%	47%	46%	55%	58%	56%	53%	65%	62%
Consumption per capita of NZ wine (liters)	10.8	9.3	8.2	8.8	8.8	11.2	12.1	12.2	11.1	13.9	13.0
Consumption per capita of all wines in NZ (liters)	17.3	17.3	17.4	18.5	19.6	19.8	20.6	21.7	20.8	21.5	21.1

Source: New Zealand Winegrowers.

An important index of changes taking place in the New Zealand wine grape growing trade are bulk wine exports. These constituted a very restricted market up to the beginning of 2008, when they began to be an increasingly important quota of sales, up to the exponential growth phase at the beginning of 2011 (figure III.9). According to Anderson this is a sign of oversupply and market imbalance, and in effect the phenomenon went hand in hand with a crisis in the prices of grapes.

**Figure III.9. - New Zealand bulk wine exports**

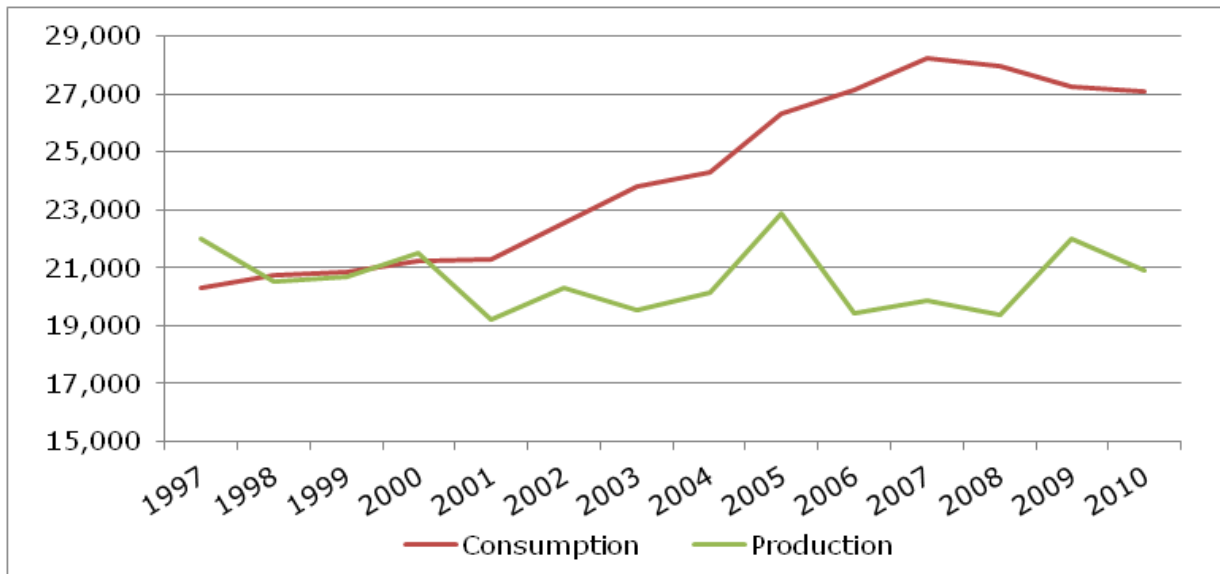
Source: Global Trade Atlas.

### III.4.3. United States

Wine production in the USA has shown considerable stability over the past 13 years, standing at values close to 20 million hectolitres. On the contrary, US wine consumption rose greatly in the first 7 years of the new millennium, followed by a slight reduction until it stood at 27 million hectolitres. The difference between supply and demand trends has created a gap of approximately 6 million hectolitres, even though both started with values

close to 21 million hectolitres in 2000, and this has allowed a growing number of foreign competitors to enter the market.

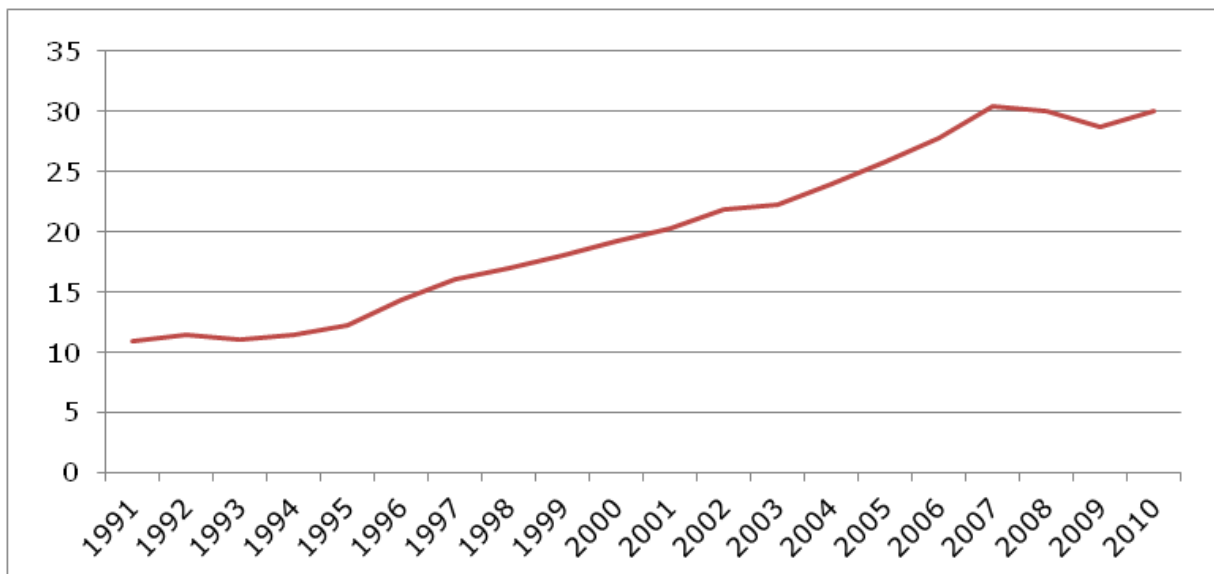
**Figure III.10. - United States wine production and consumption – thousands of hl**



Source: our processing of OIV data.

Sales of wine in terms of value increased a great deal more than volume consumed, which is a sign of increase in the average retail price of wine. Only in 2008 and 2009, i.e. the years in which the crisis struck the US economy the hardest, there was a very slight drop in the value of sales, which then fully recovered with the upturn of 2010. In 2010 the value of wine sales exceeded 30 billion dollars, with an increase of 56% over 2000 and 175% over 1991.

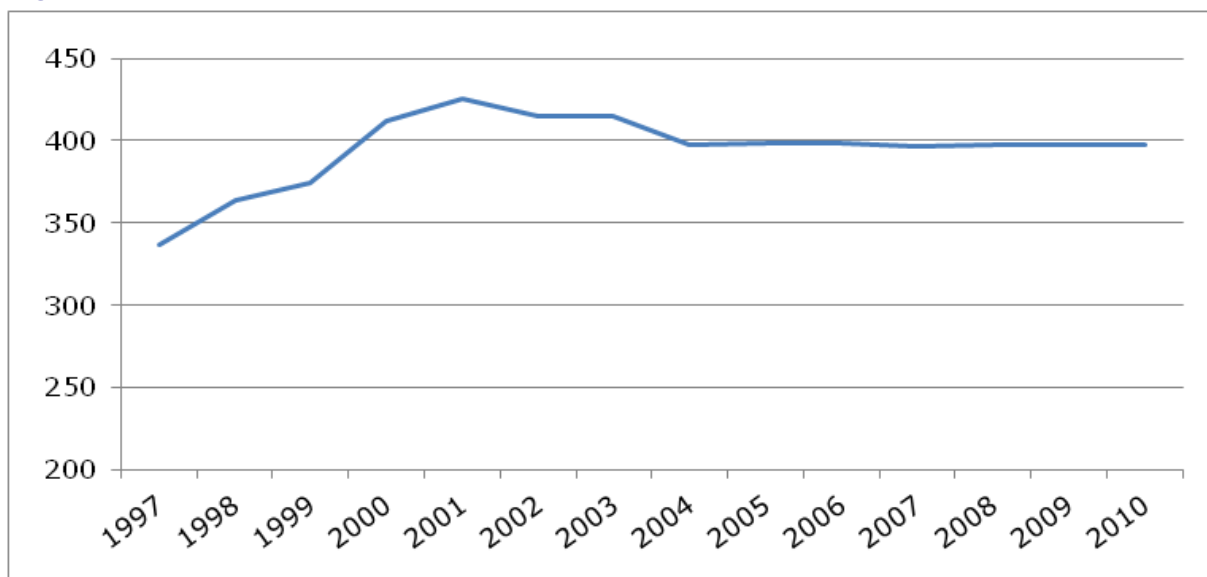
**Figure III.11. - Wine sales in the US – billion of US Dollars**



Source: Department of Commerce, Estimates by Gomberg, Fredrikson & Associates.

The curve regarding evolution of the area under vines closely followed that regarding supplies of national wine up to 2000, then it started to drop in 2001, which led to the loss of 26,000 hectares of vineyards. In spite of growth in consumption, since 2004 US wine grape growing potential has remained stable, as can be seen from the curve plateau.

**Figure III.12. - Evolution of area under vines in the USA – thousands of ha**

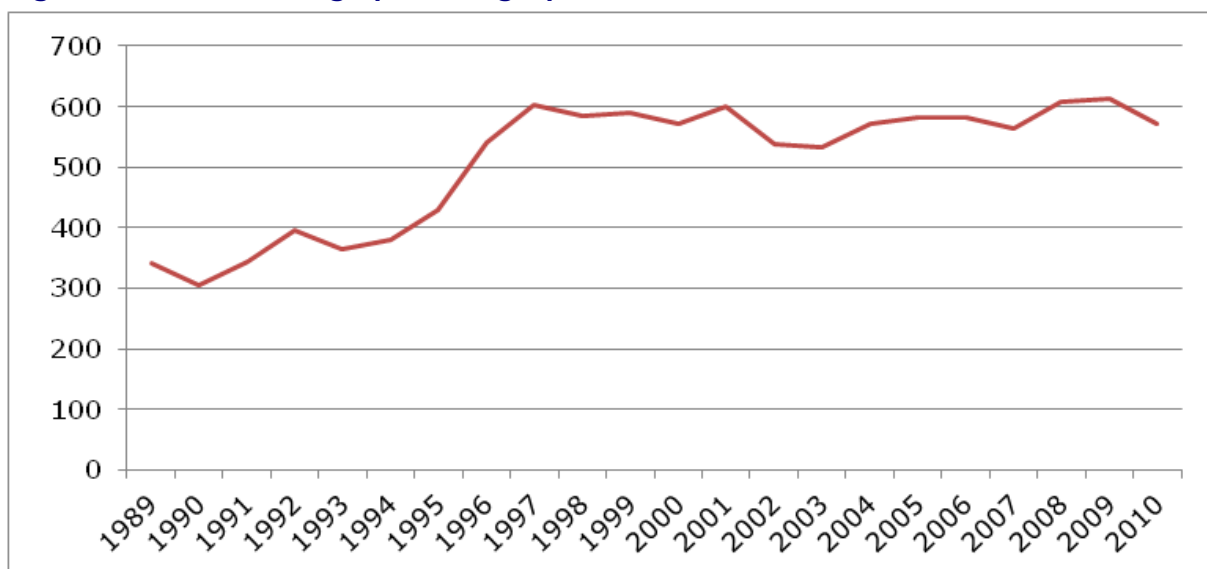


Source: our processing of OIV data.

This static situation can be explained by the average price of grapes, which has remained practically the same since 1997 at values close to 60 cents per kilo, discouraging investments and vineyard expansion (figure III.13).

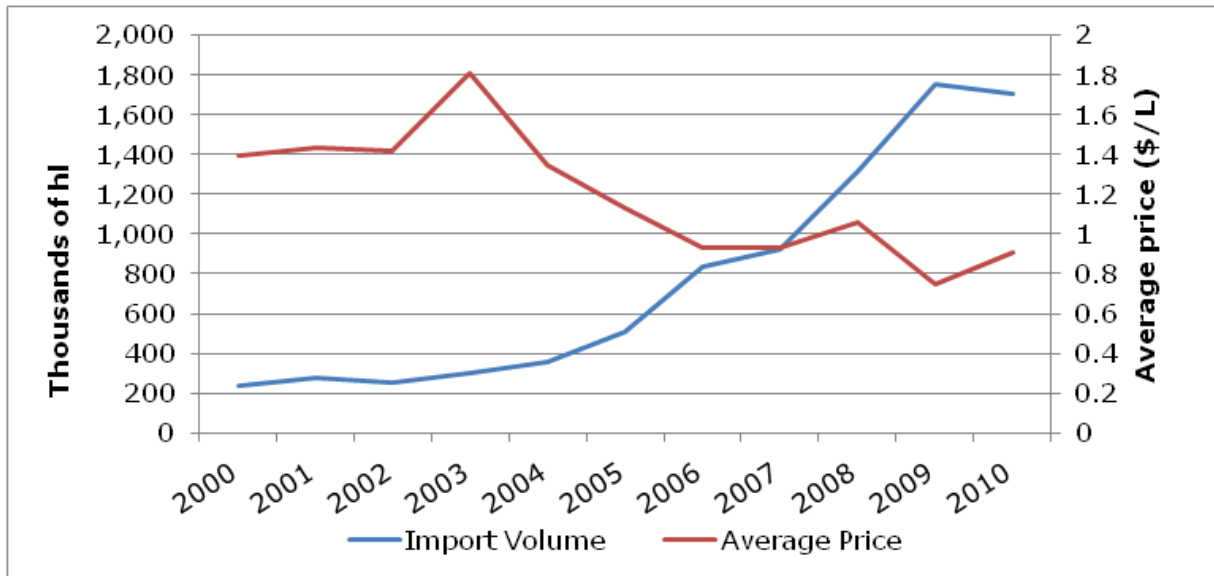
It must be pointed out that the expansion phase for area under vines can be chronologically superimposed on that regarding increase in the value of grapes, further proof of the close link between the two components.

**Figure III.13. - Average price of grapes in California – USD/t**



Source: USDA-NASS, California Field Office.

In this way some producers have considered it more economical to buy bulk wine abroad rather than increase their production of grapes. This situation is clearly shown on figure III.14, where we can see an exponential increase in bulk wine imports, going from around 200 thousand hectolitres in 2000 to almost 1.8 million in 1999. At the same time there was a drop in the average price paid for bulk wine to a value below one dollar per litre, making it even more economical to buy.

**Figure III.14. - US Imports of bulk wine and average price paid**

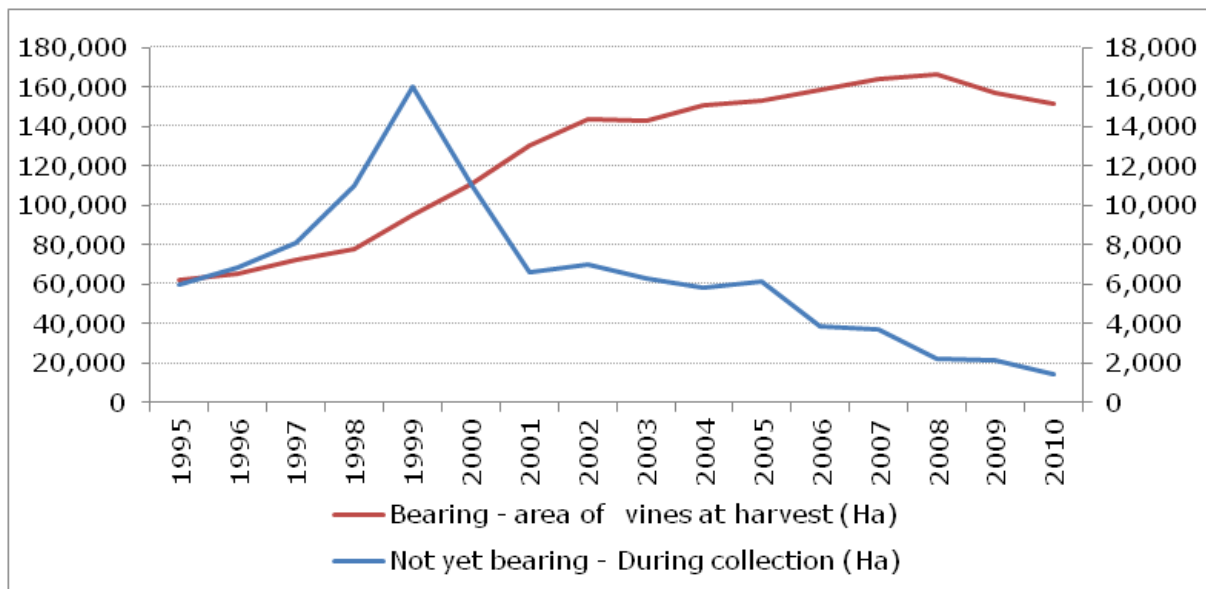
Source: our processing of GTI data.

#### III.4.4. Australia

In 2010 Australia had the 2.3% of the vine-growing global surface. In the same year, the surface dedicated to the Australian vine has reached 163.000 hectares, equal to a growth of 158,3% compared to 1976<sup>1</sup>. This is the best performance (+100.385 hectares) compared to those registered in the countries of the so-called "new world", as well as to those of the European Community.

It is interesting to notice how, during the last 15 years, the area given to vine-growing has increased up to the peak in 2008 (figure III.15). Against it, during the 2008-2010 period, the area has decreased by 8,7% of the total (ABS, 1995-2010). The growth of the Australian vine-growing surface realized largely during the period 1996-2002, has been followed by a decrease in the number of new plantings, going on since 2002. At the moment, Australian vineyards plantings are dominated by some red-berried varieties (Shiraz, Cabernet Sauvignon, Merlot, etc) and white-berried ones (Chardonnay, Sauvignon blanc, etc) (AWBC, 2011).

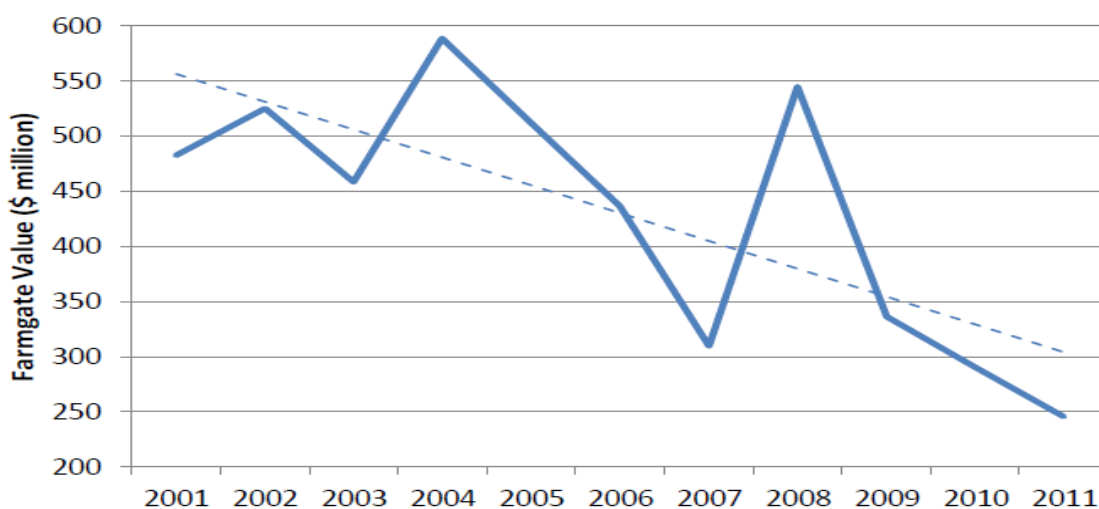
**Figure III.15. - Trends in areas under vines in Australia (hectares), 1995–2010**



Source: ABS data available on request, Vineyards collection, 1995-2010.

In 2010, Australia has produced 1.6 million tons of wine-grapes. The 56% of the raw material came from a white-berried variety<sup>1</sup>. Vineyards’ production has grown by 280.8%, compared to 1976. In this contest, it has to be mentioned how, in Southern Australia, the value of raw materials’ production has undergone a large decrease, especially in the last six years (Hackworth, 2011; figure III.16). From 2008 to 2011 prices of shiraz grapes decreased of 30 - 60% (Anderson, 2011). In 2011, the consequences of the persistent over-supply crisis which has been enveloping the Australian vine-growing sector, has led to the sale of grapes at a lower price than that of production, which has impacted strongly on Australian concerns’ economic viability.

**Figure III.16. - Trends in Farmgate Value of Wine Grapes, South Australia 2001–2010**



Source: Phylloxera and Grape Industry Board of SA, 2011 Winegrape Utilisation and Pricing Survey.

Australia represents 4,3% of wine offer and 2.1% of global wine demand. With a production structure of over 2000 wineries, wine production has reached a volume of 1.13 million tons, showing a growth of 178.1% since 1987.

Sales in the domestic market have reached 470.800 tons, with a growth of 42.5% in the period 1987-2010.

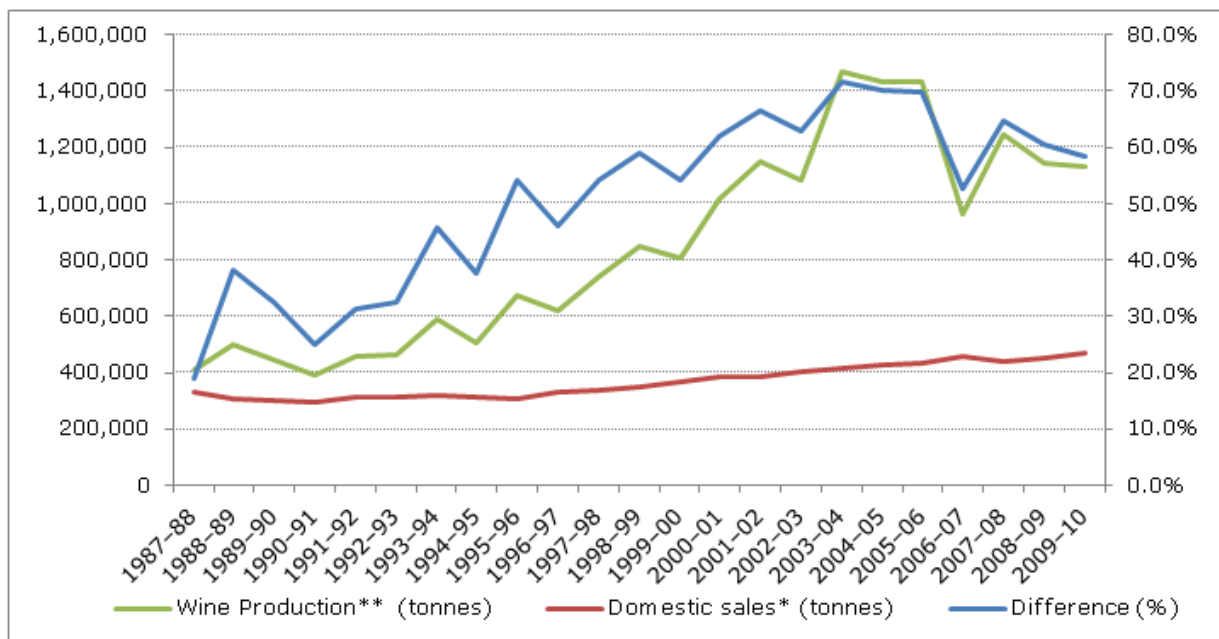
In terms of value, wine consumption in the domestic market has produced 512 million dollars and the average price has been € 4.51/litre.

White wines, particularly, by registering in 2010 a volume of 219.500 tons, represent 46.6% of the total, but indicate a decrease of 15.2% in the amount ratio of 1987.

The red and rosé wines, by absorbing in 2010 an amount of 176.4 million tons indicate, instead, a dynamic growth since 1987 of 241.9%. Sparkling wines, from their part, by reaching a market amount of 40.1%, also show a growing trend (+23% since 1987), but more contained and less regular.

Because of these changes, the difference between production and consumption has grown from 18.5% in 1988 to 71.6% in the year 2003-2004 (figure III.17). On the other hand, since 2004-2005 the differential is settling on a regressive-like tendency, contracting in 2010 by 58.5%.

**Figure III.17. - Trends in wine production and consumption (tonnes), 1987–2010**



Sources: Sales of Australian Wine and Brandy by Winemakers, 1987-2010; FAO STAT, 1987-2010.

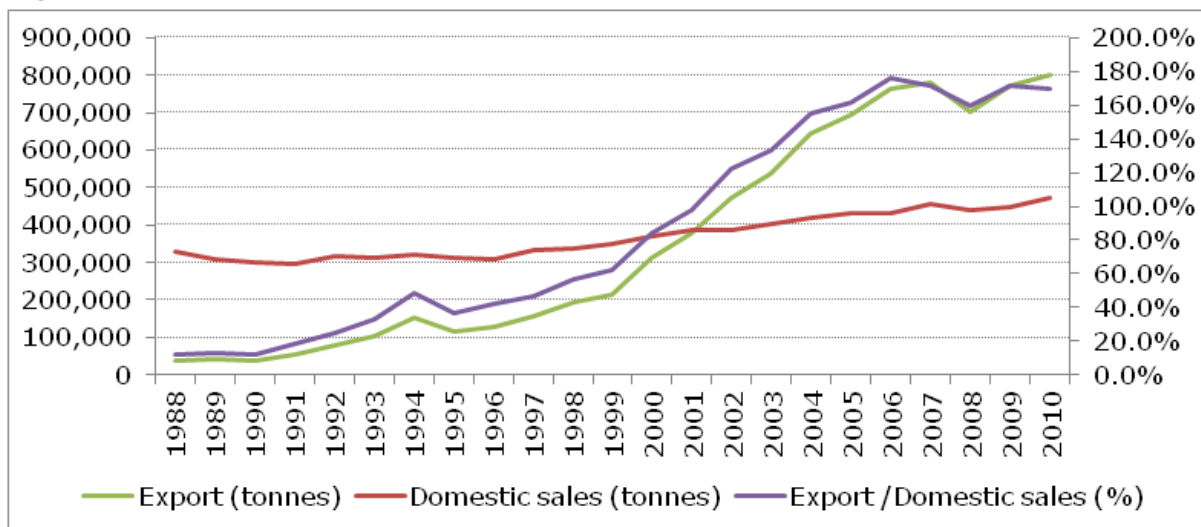
These market trends have strongly interested international commerce's propensity. It is interesting to notice how the ratio between exports and consumption has grown strongly, from the 11.9% of the late Eighties to the 169.8% of 2010 (figure III.18). This is the reason why during 2001-2002 the ratio between export and consumption has zeroed. Since 2006, the Australian wine market has marked a fluctuation in the export/consumption ratio of between 1.6 and 1.76.

These tendencies have been influenced by the markets globalization phenomenon which has favoured more markedly the new world countries, beginning with Australia (Anderson, 2011).



In this contest, pro capite consumption has grown from 24.1 litres/person/year in 1996/97 to 29 litres/person/year in 2009/2010, opposite tendencies to the ones in the traditional consumer countries.

**Figure III.18. - Trends in wine export and domestic sales (tonnes), 1988–2010**



Source: Sales of Australian Wine and Brandy by Winemakers, 1988-2010. FAO STAT, 1988-2010.

Australia represents, in 2010, the fourth world wine exporter in volume with a share of 8.5% of the total. Australian exports have been estimated at 799.500 tons to a value of US\$ 191 million, corresponding an average value of US\$ 2.28/kg (FAO, 201).

Australia wine industry is strongly export oriented with 2/3 of the production been sold abroad. Currently, Australia holds the highest propensity to export in the world after Chile (Anderson 2010, Anderson 2011).

Between 1976 and 2010 the export growth in volume has been a yearly average of 15.4%, signalling a heightened growth since the mid-nineties. This figure shows how Australia's volumetric trend has been the more interesting one among the so-called "New Players" in the new world (figure III.19).

Between 2000 and 2010, Australia has increased its export by 488.600 tons, making itself known for a growth bigger than the 5 main European countries (+40.4%), as well as the main *players* in the new world (+114.5%).

In the same period, Australia positive performance is in evidence also for value when, registering a growth in value of over a billion dollars, shows a growth of 111.3% compared to 2000. This results are better performing compared to the 5 European producers (+96,3%), but are lower than the average of the most important new world's *players* (175.1%), as they feel more markedly the decrease of the unit value, under way since 2007. As a matter of fact, in the 3 years 2007/2010 Australian exports value has decreased by 23.2%.

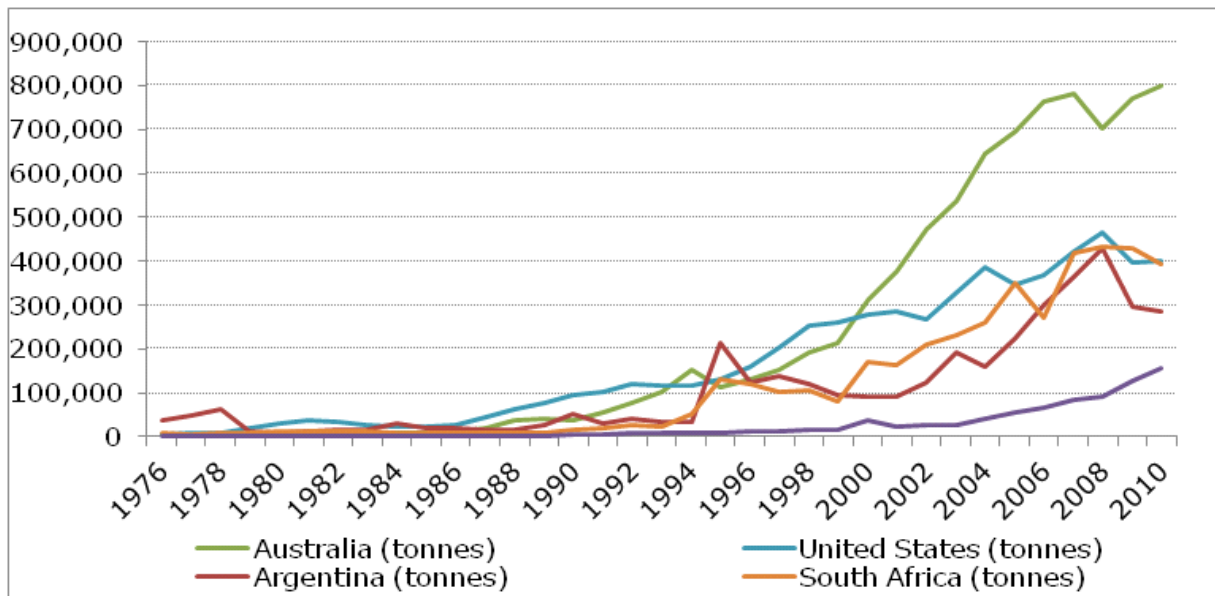
Among the factors that contributed to the increase of exportation there are:

- 1) The increased income in the English market (Tatcher's Economy Reforms).
- 2) Increasing opening of the market due to new rules (ex. UK Retail Liquor);

- 3) The creation new channel for Premium wines (ex. USA for Casella Wines);
- 4) Australian dollar devaluation;
- 5) The increased taxation on wine consumption from 10% in 1984 to the actual 29%.

Actually Australian wine market undergoes a crisis of due to oversupply, underlined by the percentage of bulk wine sold abroad increased from 2% in 1984 to 47% of 2010-2011 (Anderson 2011). Furthermore, prices of bulk wine decreased from the peak of 2001 to A\$2,69 of the years 2010-2011 with evident effect on the whole productive chain. Such dynamic found a further critical element in the increase bulk wine exportation and increased international competition (Rabobank, 2012).

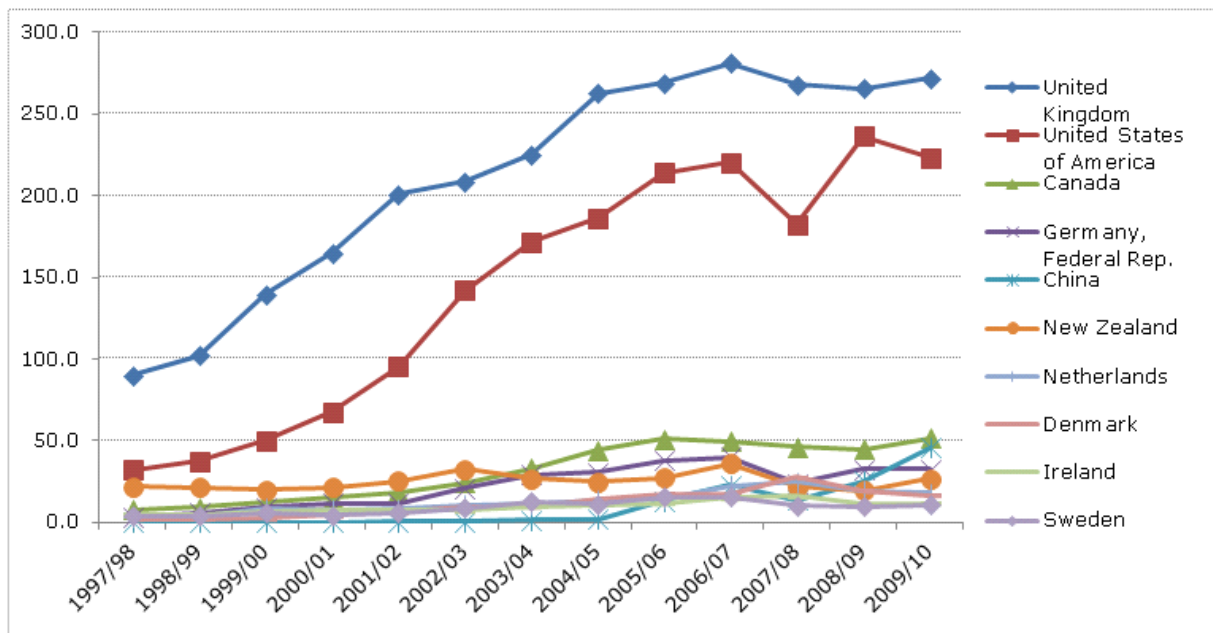
**Figure III.19. - New World Players: Evolution of major wine exporters by volume (tonnes), 1976–2010**



Source: FAO STAT, 1976-2010.

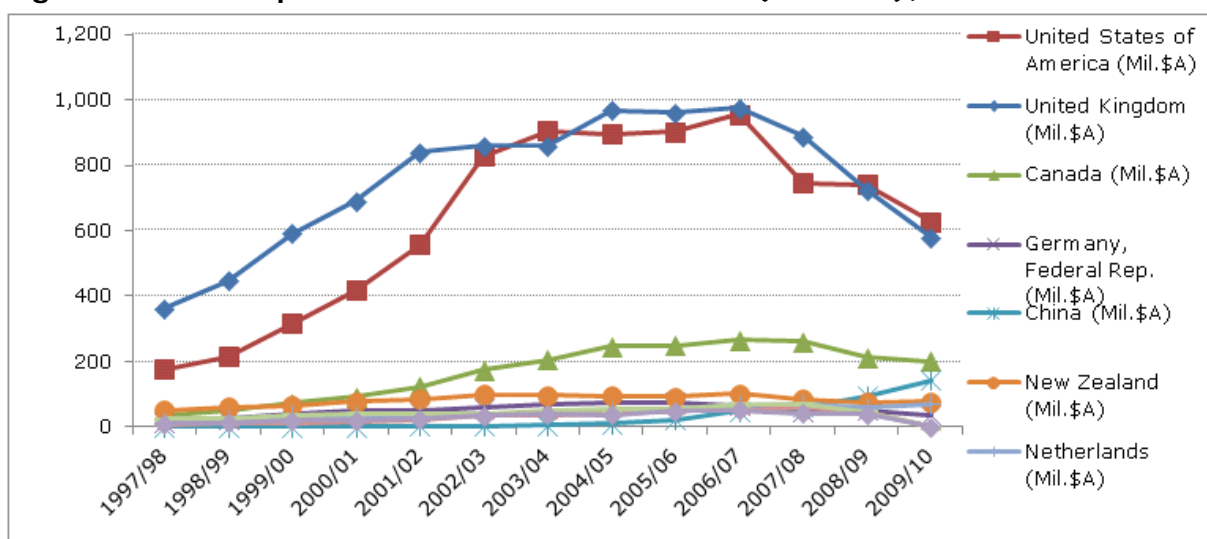
In the year 2009/10, the main Australian export markets are the UK and the United States, with the 63.7% of the volume and the 55.6% of the value, corresponding to 495 million litres and 1.206 billion A\$ (figure III.20 and figure III.21). The exports to this countries have grown in volume to the reached in the year 2006/07, followed by a decrease of UK sales (-3.3% in the period 2007/2010) and light growth in the US (+1.2%). During the period 1998/2007 the exports value has grown significantly, coming close to 1 billion for both countries, while the period 2007/2010 has shown a decrease in export value for the US (-34.4%) as well as for the UK (-40.7%). With reference to the typology of exported wines, in the year 2009/2010, table wines take a 97.6% share, while 2.3% represent sparkling wines, followed by a 0.3% of fortified and other types of wines. Table wines' ratio has grown from the 92.9% of 1994/95 to the 97.6% of 2009/10.

**Figure III.20. - Export volume of Australian wines (Mil. litres), 1997/98–2009/10**



Source: AWBC export approval database.

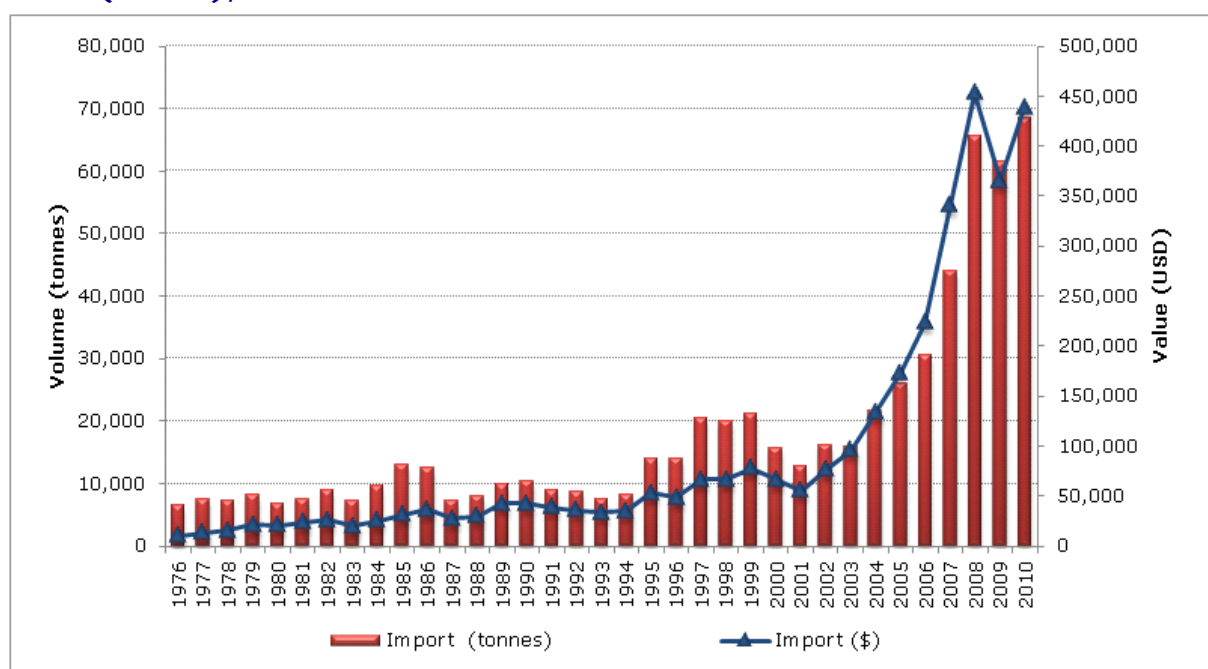
**Figure III. 21 - Export values of Australian wines (Mil. AUD), 1997/98–2009/10**



Source: ABS data available on request, International Trade database.

With regard to wine imports, Australia is not present among the main world wine importers. It represents, in 2010, 0.8% of world imports with 68.500 tons. Since 1976, Australian imports have grown by 966.4% (figure III.22). The trend noticed in volume terms has gone hand in hand with a growth in value. In 2010 the value of imports has been of about 440.000 US\$, corresponding to a growth of 557% since 2000.

The main importing countries are New Zealand, with 68% of share market by volume, followed by France (13%) and Italy (10%). The share market of imports sales absorbed by the domestic market, has increased from 3% in 2001 to 15% in the three years period 2010-11, widening the imbalance of the Australian wine market.

**Figure III.22. - Trends in wine imports into Australia – total volume (tonnes) and value (in USD), 1976–2010**

Source: FAO STAT, 1976-2010.

In this context, new challenges and new opportunities come from Australian market seems to affect the chance to adapt the supply, on one hand, for emerging markets (especially in Asia, etc) and on the other hand to sustain the challenges of international competition (Anderson, 2011).

**Table III.11. - Australia vines removed 2008-11**

	Vine Area (Ha) 2008*	2011 Vine Area (Ha)	2011* Removed (Ha)	Percentage Removed (%)
Barossa	13,411	13,419	8	0.1%
Fleurieu	15,436	15,252	184	1.2%
Limestone Coast	16,038	15,752	286	1.8%
Riverland and Lower Murray	22,925	21,235	1,690	7.4% <sup>59</sup>
Mt Lofty Ranges	10,706	10,469	237	2.2%
<b>South Australia</b>	<b>78,717</b>	<b>76,363</b>	<b>2,354</b>	<b>-3.0%</b>

\*Phylloxera and Grape Industry Board.

Source: Wine Australia, Winefacts dashboard.

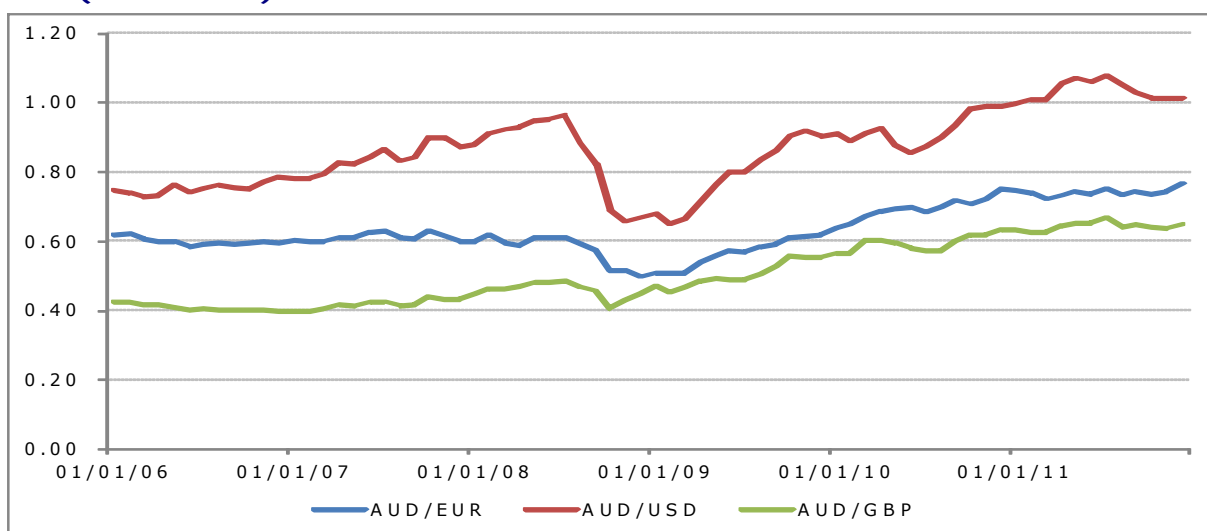
<sup>59</sup> Riverland Wine Grape Growers Inc. believe that approximately 4,000 ha has been removed from their region aided by subsidies through a range of government assistance programs.

**Table III.12. - Change in Value of GBP, 2007-2010**

Country:	2006	2010	Change
<b>US</b>	0.52	0.63	20.2%
<b>South Africa</b>	0.07	0.09	22.8%
<b>Chile</b>	0.0009	0.001	28.8%
<b>Argentina</b>	0.17	0.16	-6.9%
<b>Euro</b>	0.52	0.63	20.2%
<b>Australia</b>	<b>0.4</b>	<b>0.62</b>	<b>52.3%</b>

Source: HM Revenue and Customs.

**Figure III.23. - Trends in the exchange rate of the AUS\$ against the EUR and the GBP (2006–2011)**

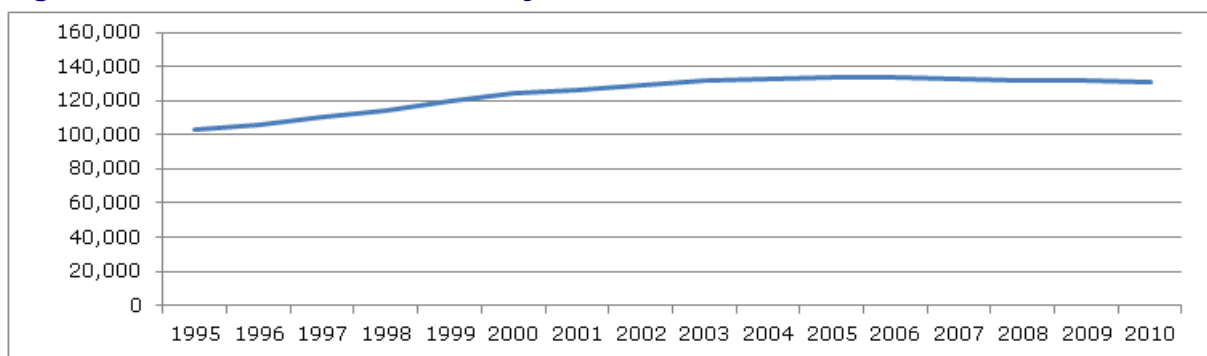


Source: HM Revenue and Customs.

### III.4.5. South Africa

South Africa is the eleventh country in the world for vineyards’ surface destined to wine production. This has shown an increase of 27% in the period 1995-2010. How one can see in figure III.24, the largest increase has been in the period 1995-2003, followed by a phase of flat growth where there has been some stability in production potential.

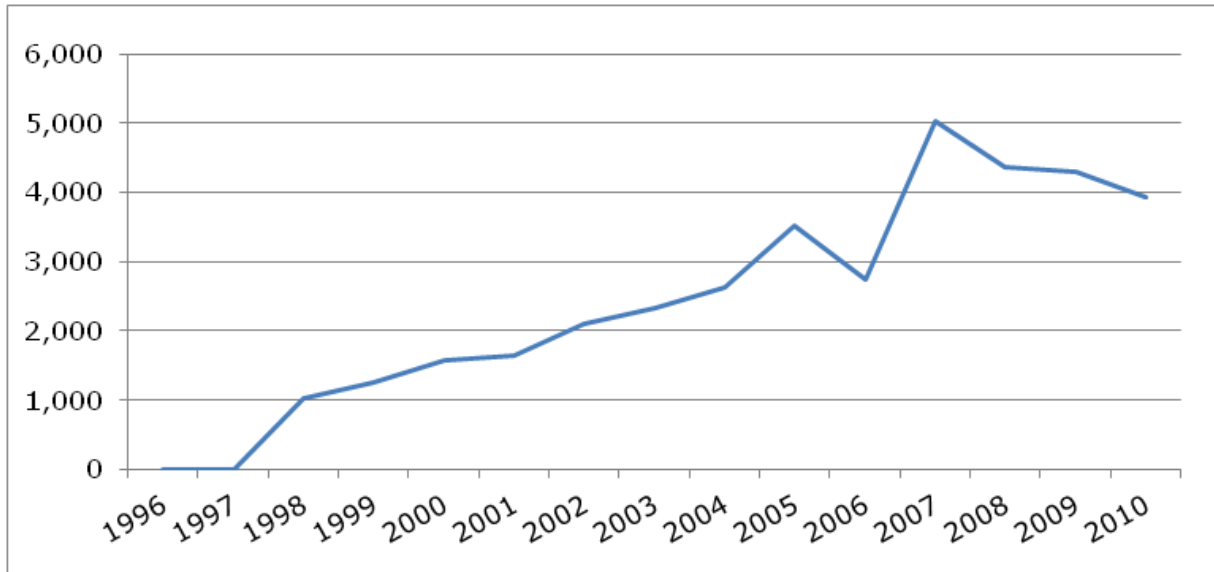
**Figure III.24. - South Africa’s vineyards surface - thousands of ha**



Source: Own OIV data elaboration.

South Africa is a country which only recently has appeared on the international market as an exporter. Up to 1997, export was practically inexistent, but starting in 1998 it started becoming an ever more important channel for the national produce's sales, growing almost exponentially till 2007 when, with over 5.000.000 hectolitres, it absorbed 51% of all wine produced in South Africa. Since 2008, though, we have seen an inversion, with all probability due to the difficult global economic situation, and in 2010 exports have, once again, fallen below 4.000.000 hectolitres.

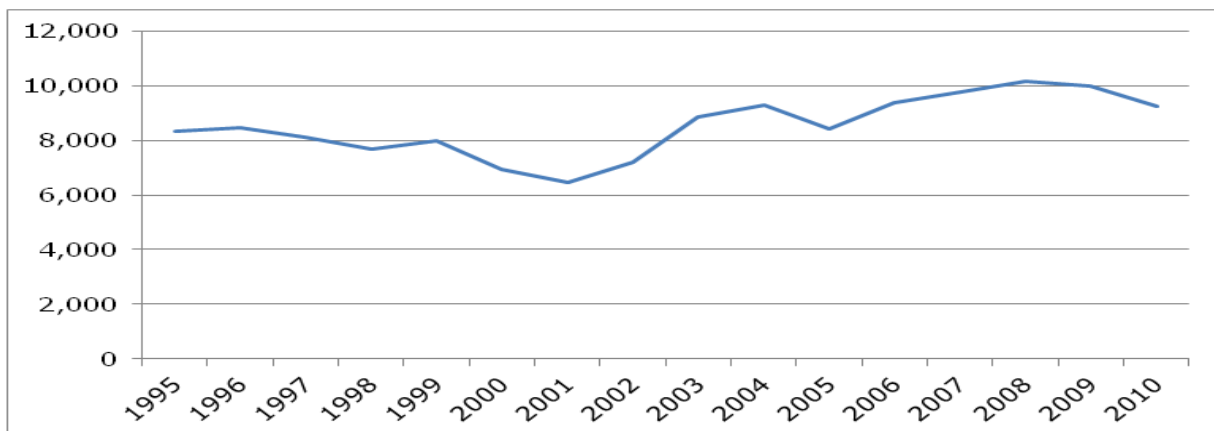
**Figure III.25. - South African wine exports evolution – thousands of hl**



Source: Own GTI data elaboration.

South African wine production has shown a seesaw performance, in spite of the ongoing growth in its production potential. The motive of this difference can be found in the great production structure modernization which has straddled the new millennium, and which has temporarily brought about a decrease in the hectares 'yield. Since 2001, production has once again began to grow, overtaking 1996's levels in 2003. The highest production peak has been in 2008, followed by two years when yield has been lower.

**Figure III.26. - South African wine production evolution – thousands of hl**

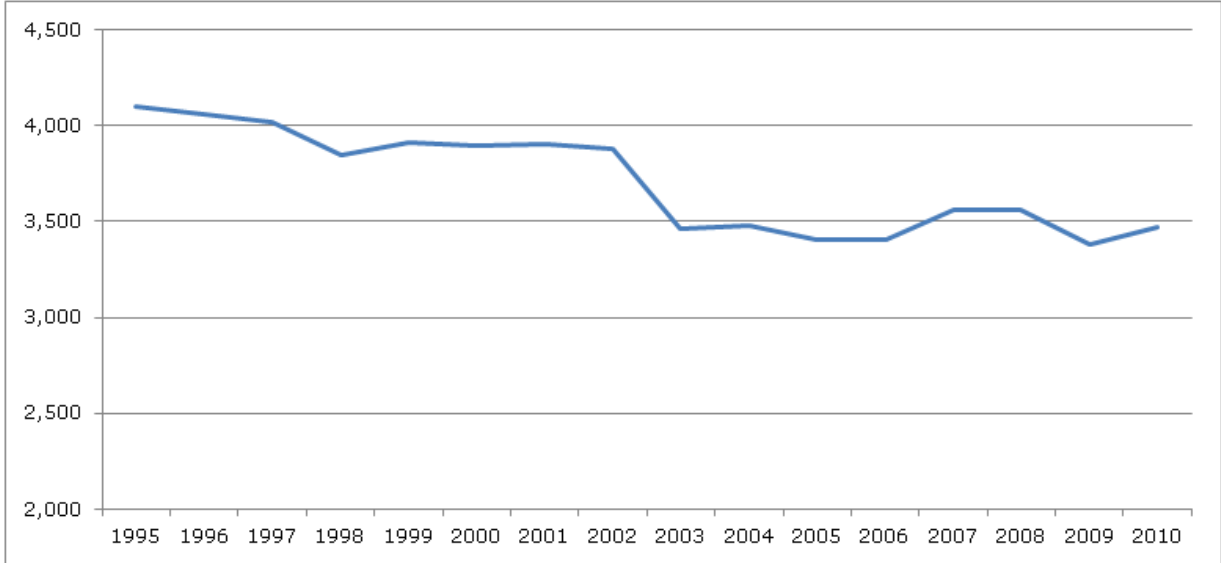


Source: Own OIV data elaboration.

South African wine consumption has shown a slight decrease in the period 1995-2010, going from 4.100.000 hectolitres to 3.400.000. This decrease has not been constant, but

one can single out two main periods: the one between 1997 and 1998 where the decrease has been 170.000 and, most of all, that between 2002 and 2003, when the decrease has been over 500.000 hectolitres. We then find two periods (1998-2002 and 2003-2010), characterized by a steady domestic demand. South Africa is one of the few countries in the so-called new world, together with Argentina which, throughout the years, has shown a decrease in national wine consumption. However, the long demand stability's phase, started in 2003 and presently still on, makes one think that a certain stability has been created and that his will be active also in the near future.

**Figure III.27. - South African wine consumption – thousands of hl**



Source: Own OIV data elaboration.

## ANNEX IV: THE MILK PACKAGE

The milk package has provided for a liberalisation of the milk sector, abolishing milk quotas from 2014 on. As underlined by the Commission, the existence for a long period of fixed quotas and high institutional prices, guaranteed outlets for dairy commodities and created rigidities in the market. Structural adaptation was often inhibited, actors in the production chain were not stimulated to respond to market signals, including price movements, and there were reduced incentives for innovation or productivity gains. Indeed, the dairy reform should mirror a better freedom to farm. This should lead to efficiency gains and allow for the EU sector to take advantage of market opportunities, inside and outside the EU. Given this background, the legislative proposal of the Commission, which is to be discussed next February in Parliament, aims to strengthen the European milk sector, intervening on the following key aspects: contractual relations, bargaining power, producer organisations and inter – branch organisations. Transparency and exemptions from competition law have been also provided for.

### Box IV.1. - The supply chain

The dairy producing and processing sectors vary widely between Member States. Production and processing structures are very different from one Member State to another with, at one extreme, a predominantly cooperative organisation where the cooperative also processes the milk and at the other extreme, large numbers of individual producers and a large number of private processors. Anyway the dairy value chain has several links between the farm and the consumer. We can identify four levels of the supply-chain: producers, processors, distributors and retailers. They contribute to procurement, transportation, processing, commodity storage, conversion packaging, distribution, retailing, and food services. The processing link alone can be broken into fluid product, manufactured product, by-products, and balancing.

### IV.1. Contractual relations and bargaining power

The problem reported by the High level Group on Milk about variation of prices of raw milk is that there is a lower concentration of supply in many cases, with a consequential imbalance in bargaining power in the supply chain between farmers and dairies. Since the dairy supply chain is made of producers, processors, distributors and retailers, the disequilibrium can be specially recorded between retailers on the one hand and farmers and processors on the other. Imbalances are accentuated by the fact that producers often cannot change their purchasers, given the high costs of collection and transport. This means that they are in a position of economic dependence vis-à-vis their processors, with a consequent problem of profit sharing between upstream and downstream the supply - chain. Imbalances also influence consumer prices of milk products: comparing the price paid to producers with the transmission of price along the chain, a damage for farmers has been too often found. On the contrary, value added is most concentrated in the downstream sectors, notably dairies.

The proposed solution, given this background, is the providing of written contracts between farmers and processors to oblige purchasers of milk to offer farmers a minimum contract duration. The High level group on milk proposed, and the Commission transposed, to



enforce the bargaining power of farmers with this instrument, allowing Member states to bind the parties of milk chain to negotiate the price of raw milk. This has been considered the best way of defending farmers in a liberalised market, cause they who too often know the price of raw milk only after its production and have a low bargaining power.

As for the contractual scheme, the legislative proposal fixes several conditions for their provision.

- First of all, as for **subjects involved**, either single farmers or a producers organisations can negotiate the price of raw milk with processors.
- As for the **object**, the written contract shall be concluded in advance of the delivery and include:
  - The price payable for the delivery, which shall be static and be set out in the contract, and vary only on factors which are set out in the contract.
  - the volume which may shall be delivered and the timing of the deliveries.
  - the duration of the contract, which may include an indefinite duration with termination clauses.
- As for **limitation clauses** of the negotiation, the total volume of raw milk covered by the contract by a producers organisation mustn't exceed the 3,5% of the total Union production, the 33% of the total national production or the 33% of the total combined national production of all the Member states covered by such negotiations by that producer organisation.
- As for the decision by a Member state to bind the negotiation between the parties fulfilling the conditions already mentioned, they can decide:
  - That every delivery of raw milk in their territory by a farmer to a processor of raw milk must be covered by a written contract.
  - Or that first purchasers must make a written offer for a contract for the delivery of raw milk by the farmers providing for a minimum duration set by national law for that purpose. Farmers can refuse such a minimum duration. In this case, both parties can freely negotiate another duration of the contract.
  - which stages of the delivery shall be covered by such a contract between the parties if the delivery of raw milk is made through one or more collectors.

For the purpose of the regulation, **first purchasers** are considered undertakings or groups which buy milk from producers to subject it to collecting, packing, storing, chilling or processing, or sell it to one or more undertakings treating or processing milk or other milk products. Conversely, **collectors** are undertakings which transport raw milk from a farmer or another collector to a processor of raw milk or another collector, where the ownership of the raw milk is transferred in each case. This means that Member states are free to decide, taking into account the structure of national milk supply-chain, which level is more weak and need an enforcement of bargaining power. So producer organisations and associations of producer organisations could negotiate contracts directly with first purchasers, but also with collectors to which they sell the law milk and so on. What is important to underline is that in each case the position of farmers is to be protected, as they are the weakest link of the chain.

An exception for cooperatives has been contemplated, since, for their structures, Farmers are already obliged to deliver all their milk to their co-operative to which they are

associated and the co-operative is obliged to accept all the milk. So, they can avoid to negotiate written contracts, on condition that their statutes provide for rules with the same objective.

An enforcement of protection of cheeses benefiting from PDO or PGI as has been added in the last revision of the legislative proposal. So, member States are allowed to lay down, for a limited period of time (three years maximum, renewable) binding rules for the regulation of supply of the product concerned in order to adapt supply of those cheeses to demand, and contribute substantially to maintaining the quality or ensuring the sustainable development of the product concerned.

The request of regulation must be submitted by:

- a producer organisation;
- an inter-branch organisation;
- a group of operators referred to in Article 5(1) of Regulation n. 510/2006, i.e. any association, irrespective of its legal form or composition, of producers or processors working with the same agricultural product or foodstuff.

A set of conditions has to be met to limit this regulation by the Member State.

- It should be agreed in advance by at least two thirds of the milk producers representing at least two-thirds of the raw milk used for the production of cheese itself and, where appropriate, at least two third of the producers of that cheese representing at least two third of the production of the cheese itself in the geographical area of the designation of origin.
- It has to avoid damage to trade in other products and to protect minority rights.
- It shall not create discrimination or barriers for new entrants in the market, nor render unavailable an excessive proportion for the product that would be otherwise available.
- It shall not allow for price fixing, including where prices are set for guidance or recommendation.

## **IV.2. The French example**

In France the law of modernization of agriculture and fisheries of July 27, 2010 (AML), has already stated (art. 12) that contracts between producers and processors may be made compulsory by the extension of an agreement or decree. Indeed, Decree No. 2010-1753 of 30 December 2010 binds the negotiation in the dairy sector from 1<sup>st</sup> April 2011 on. Clauses to be included in the contract concern the contract (5 years minimum), volume, product characteristics, the methods of collection and delivery, criteria and procedures for determining the price, payment terms and conditions for review and termination. In particular, the negotiation shall comprise the volume of milk delivered by the producer for each period of twelve months of the contract and the conditions under which the volume of this twelve-months period can be adjusted up or down, even if until the end of the quota system, the volume is determined by reference to individual quotas of the farmers. It is important to underline that the French scheme already provided for another element of the contract, which can be considered of great value, i.e. the negotiation of characteristics of milk to be delivered. French legislature in fact wished to subordinate the price of milk to the quality of the product and its characteristics. So, the final price of milk sold will depend, on

the one hand, from the quality characteristics of milk and secondly, by hygienic and sanitary characteristics of the product, which will be assessed by reference to provisions of EC Regulations.

Having bound the actors of the supply-chain to negotiate, many producer organisations are preparing their contracts with the dairy industries. The first "*contrats cadre*" (framework contracts) between producer organisations and dairy industries as Danone and Milleret have already been signed. The bargaining power of farmers in this scheme is enforced by the presence of a producer organisation which, representing an high number of producers of raw milk which is to be sold to big dairy industries, can obtain a better price and, moreover, a certainty given by a production planning. The producer organisation negotiate



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ISBN 978-92-823-3933-6

doi: 10.2861/26783